



Impressions of the International Dental Congress.

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I communicate to the readers of *ITEMS OF INTEREST* a brief *resumé* of such features of the International Dental Congress as appears to me worthy of special consideration. It will not be the purpose of this abridged summary to detail what was contributed by American talent, since their papers, no doubt, will speedily appear in the several home journals; but I am impelled to call attention to the very creditable donation by the American dentists, since their efforts in this great gathering were of so praiseworthy a character as to deserve hearty commendation. I am not so certain about the early publication of these papers. If the Committee on Organization has its way, no paper can appear in print prior to the publication of the entire proceedings—unless the committee allows it. The following notice containing a rule of organization, binds the authors of papers to the Committee on Proceedings: "All works or papers which may be published other than under the direction of the Congress, with the consent of the author, within less than three months after the session, shall *only be mentioned by title* in the volume of proceedings," consequently the anxious American dentists, as well as the delegates to the Congress, will be obliged to wait a few months before they can learn definitely what the advanced ideas in the profession are.

While at the Congress, I made extensive notes of clinics and lectures and attended the gathering from the initiatory ceremonies to the valedictory exercises, and much can be published concerning the work accomplished regardless of the very strict rules of the Committee on Organization. What I shall communicate or give extracts from shall be rendered without the consent of the authors, hence the premature ap-

pearance of the matter will in no way jeopardize the original article, as much of the matter comes from the Official Journal.

**Social Features
and Personnel
of the Congress.**

The Congress was well attended. Upwards of twelve hundred registered and all seemed eager to lend their quota towards making this dental meeting a greater success than the one of Columbian fame.

Whether the Paris Congress was a greater dental event than the one given at Chicago, remains to be learned. Only such as understand English, French, German, Spanish, Italian and Russian can pronounce the judgment. In the meanwhile, we all anxiously await the translated proceedings, which will give us a clearer conception of what in reality transpired.

The social features of the Congress were a prominent factor, and all can without equivocation declare the Paris event as the most elite social function ever given in the history of dentistry. The banquet given by the American Dental Society of Europe to the American delegates will long be remembered as a very happy occasion.

The Congress, no doubt, was productive of great good, and much scientific information was offered to the profession. The French naturally held sway, but it did seem that placing upwards of fifty Parisian dentists on the programme was rather patterning after the underlying principles of all trusts. The Congress was immensely and intensely French. This certainly was unfortunate for the American members, for they were absolutely lost in the flood of French oratory. But, fortunately, there were a *few* who could render assistance; through the benignity of Drs. Harlan and Cunningham, both of whom understand and speak French, the daily routine in French was interpreted, and this relieved the English speaking delegates and members of a "tired feeling." In fact the Americans and English followed Drs. Cunningham and Harlan through this wilderness of uncertainties, much as the wandering Israelites sought the guidance of the "cloud of smoke and pillar of fire."

However, the entire Congress was not in French. A good portion of it was German, and I was much interested in this as I comprehended what was translated into the German tongue. There was considerable of a strictly scientific character in what the Germans contributed, and the statistical element in the Congress came from beyond the Rhine.

**Dental Hospital
at Hamburg.**

An interesting report was read by Dr. M. Fenchel, of Hamburg, relative to the hospital endowed by Gustav Mellin. The hospital established by this great philanthropist is accomplishing great humanitarian results. Gustav Mellin donated 125,000 marks to carry for-

ward certain charitable and educational work. The purpose of the hospital is of a three-fold nature. First, to render dental services to the poor of Hamburg. Second, to care for the teeth of poor school children. Third, to render every opportunity possible to advance the science of dental surgery.

Dr. Frenchel stated that upwards of six thousand poor children had received dental attention free of charge, while thousands of adults visited the infirmary to obtain relief and receive the benefits of this great charitable institution. Not only are the teeth treated gratis, but fillings, dentures, crowns and all operations are performed without charge.

The infirmary is well equipped, and the several laboratories of the institution are in excellent condition. The library is a large one, and the rooms for prosecuting special work in dental research are thoroughly fitted for scientific work.

Clinic by The eminent dental surgeon, N. S. Jenkins, of
Dr. N. S. Jenkins. Dresden, gave, as usual, an interesting paper and clinic relative to his system and method of restoring badly decayed teeth by employing porcelain inlays.

He certainly accomplished marvelous results, and none can deny his superior ability in the manipulation of porcelain for his class of dental restoration. It may be a surprise to many to know of the great faith Dr. Jenkins puts in his method of inserting porcelain inlays. He stated, "After an experience of more than thirty years in the use of the several materials and substances used to arrest dental caries, and the restoration and conservation of the dental organs, I have come to know that my system of porcelain inlays gives perfect satisfaction and stands superior to all other materials used. Porcelain inlays possess the same superiority over gold that the latter possess over all materials inferior to it."

Erosion. Under the title, "Chemical Erosion of the Teeth," Dr. Leon Frey and Miss Fannie Frey, of Germany, gave an interesting paper. The closing portion of the paper asked the question, "Is there an etiological relation between erosion and caries?" Up to the present writing, no writer has advanced such a theory. It would seem that there exists an antagonism between the tooth predisposed to caries by its calcareous feebleness, or its organic strength, while to the one of erosive tendencies there is calcareous abundance. Not infrequently we find that caries inaugurates erosion, while the latter never precedes caries.*

*Exactly the reverse seems true according to American experience.—EDITOR.

History. The subject of dental history received considerable notice at the Congress, and Dr. L. Lemerde and M. Guerini read long and instructive papers of "History of Dental Art." Both essayists claimed that much of a valuable nature could be learned from the ancient dental operators. The latter essayist said, "Contrary to a most extended prejudice, the affections of the dental organs were not rare even in the most remote ages. The beginning of dental art dates back to more than three thousand years before Christ. The Romans made not only fixed but removable prosthetic pieces."

Amalgam. The old, and yet always new subject "Amalgam" received much consideration at the hands of Dr. Frenchel, of Hamburg. He seemed to demonstrate that the failures in amalgam were not generally due to contraction, but to the fact that the amalgam possessed no edge strength. He also devoted much time to illustrate the importance of resistance to pressure, and came prepared to show that few amalgams in the market could withstand the pressure of force exerted during mastication. That the teeth in closing, force the amalgam into a variety of shapes, and that the fact of character change was almost universally due to the force of mastication. As early as 1890 the doctor communicated to the Germans at Frankfort-on-Main the results of a series of experiments on the expansion and contraction of amalgam. He has since this time earnestly sought to determine the cause of the numberless failures attributed to amalgam, and came to the dental Congress at Paris to demonstrate that he has solved the vexatious problem of amalgam failures. It may seem unscientific, but he certainly produced the results.

He has manufactured an amalgam, which he claimed does not either contract or expand, and also possesses excellent edge strength. His method or manner in which he produces this amalgam seems contrary to existing principles in the manufacture of amalgam. He accomplished these excellent results by mixing three kinds of alloys; one which expands, the other contracts slightly, while the third hardens quickly. Permit this parenthetical remark. In 1896 I suggested to Dr. G. V. Black at the Illinois State Dental Society that he experiment with mixing alloys, those which contract and expand, and the learned doctor discountenanced even testing the mixture, stating that it would be contrary to chemical philosophy. It seems that Dr. Frenchel has accomplished the desired result, and I am deeply interested in the outcome of the demonstration at Paris. Dr. Friedmann, of Hameln, made at the request of the Dental Society of Lower Saxony an extensive survey of all amalgams on the

market (fifty-eight different alloys) and he proclaimed the combination alloy of Dr. Frenchel superior to any tested, pronouncing it free from expansion or contraction.

Prof. D. Hesse, of Leipzig, gave an important contribution to dental prosthesis in the form of a scientific analysis of the movements of the inferior maxillary. Mastication, he says, is accomplished by two movements. First, elevation. Second, lateral movement of the lower molars on the upper ones. His articulator, which admits of articulating as well as occluding the artificial teeth, is certainly a step in the proper direction. He made particular effort to show the abnormal dentures which are now being worn, and if his suggestions were carried out, the artificial dentures would serve the purpose for which they are intended.

A paper of considerable importance was read by Dr. Fritz Schenck relative to the "Nutrition of the Micro-organisms Found in Decayed Teeth." **Bacteriology.** The nutrition of organisms contained in teeth affected by caries takes place at the expense of the albuminoids contained in the dental tubuli. If the caries has reached an advanced stage, the albuminoids of the decayed tooth prove insufficient. Those which the foods introduce into the decay, supplement it. To determine the course pursued by the bacteria, the doctor employed biuret, which gives a red purple color on the points where the nutritive matters have been introduced from without. At the points not attacked, it only produced a light rose coloration.

It was a portion of the German programme to impress on the delegates present what the government is doing in the form of dental recognition. It appears the empire is taking a great interest in the care of school children's teeth, and in view of arriving at definite results, the several dental societies are advocating a measure which purposes to chronicle the condition of the teeth of the rising generation, and do all that is practical to preserve and restore the dental organs of the poor and needy. In Northern Germany the dentists are permitted to visit the public schools and examine the teeth of the pupils, and recommend the treatment of all dental diseases. The dentists of Germany hope in the near future to merit the honor of being recognized as important factors in the up-building of a healthy and strong government founded on strong citizens.

Space will not admit giving a long account of the many interesting papers and suggestions pertaining to government inspection and care of the teeth of the poor people of the German Empire.

A paper which aroused considerable discussion and comment came from Dr. T. E. Constant. His production was entitled, "The Eruption of the Teeth," and he dwelt with considerable emphasis on the point that this physiological process has heretofore never been understood. Dr. Constant says, "The developmental process, which we term eruption of the teeth, is of interest both to the physiologist and to the dental surgeon. For the physiologist it has the fascination peculiar to an unsolved problem, and the question is one which daily intrudes itself upon the dentist. No apology therefore is necessary for bringing to the notice of the members of this Congress, among whom are many prominent physiologists and distinguished dental surgeons, a theory which, even if it be not a final solution of the problem, will at least afford a working hypothesis for the dentist, and will not affront the understanding of the physiologist. He then enumerated the various theories previously advocated and urged his objections to accepting any of them. He advanced what he called "insuperable objections" to the following theories: The Bell, Dr. Peirce, Dr. Harris, Dr. Delabarre, Dr. Coleman and others. Space forbids extensive quotations from this able paper, but I must add the theory of the author, which, given in his own words, reads: "Upon anatomical and physiological grounds alone we are justified in assuming that the blood pressure exerted in the vascular tissue which lies between a developing tooth and its bony surroundings, is the active mechanical factor in the process known as the eruption of the teeth." He added this statement: "It is obvious that the growth of the alveolar ridge or process is dependent upon the integrity of the dental pulp, or, in other words, that the pulps of the teeth as a whole exercise atrophic influence with regard to the alveolar process. It is the opinion of the writer that extirpation of the pulp of a tooth causes a marked and permanent alteration in the vascular condition of the peridental membrane—in fact, a disturbance of the vasomotor equilibrium in the direction of a paralysis of the vasoconstrictor mechanism."

**Unofficial
Discussions.**

The lecture halls at the Congress were not the only places where dental advancement was heralded; nor could the clinic fully portray the rapid march of the science of dentistry. Much could be gleaned in the rotunda through contact with the hundreds of delegates and members. It is surprising how much valuable information can be gathered by conversing with members of any liberal calling. It would be difficult to imagine the endless flow of knowledge which can be gained in listening to the proceedings of the "Unofficial and Unpublished Programme of the Anteroom." Personal contact wields an influence and a power

little less than divine. Men speak their minds more freely and enter more deeply into the real practical side of life, and in the conversation do not embellish the thought with oratorical effort. The issue is discussed, and shortcomings are eagerly admitted, and this is productive of truth—the true fountain of all scientific progress. It was in the rotunda of this Congress that much of a truly valuable nature was brought forth, and I, for one, would advocate that more of the chat or conversational method be adopted in such gatherings, and allow that such as desire could listen to a real cordial yet earnest discussion by men recognized in certain fields of thought.

**Teeth of
Army and Navy
in England.**

It was in the rotunda, while conversing with a British delegate, that I learned of the requirements of the British soldiery as regards the condition of their teeth prior to being accepted as recruits. This information was of so welcome a nature, that I inquired into the matter while touring England. And I visited Woolwich, the greatest arsenal in England, and found that the British government had taken a step far in advance of the United States, in the purpose of recognizing the qualifications of a candidate into the army or navy. In the hope of giving encouragement to our American dentists who are so earnestly advocating, and most justly too, the appointment of dental surgeons in the United States army and navy, I obtained a complete copy of the statutes of Great Britain relative to the important Act, and it reads as follows:

Requirements of Her Majesty's Naval Service as Regards the Teeth of Candidates.

Issued by the Medical Department of the Admiralty, April, 1899.

(a) Seven teeth defective or deficient in persons under seventeen years of age on the day of entry, ten defective or deficient teeth in persons above the age of seventeen will disqualify.

(b) Both classes of persons must, however, possess at least four perfectly sound opposing molars, viz.: two in each jaw, and the same number of incisors similarly placed.

(c) A tooth is to be considered defective when it cannot be made permanently serviceable by dental repair.

(d) In all cases due regard is to be paid to the condition of the remaining teeth and their being likely to last for at least twelve years. Credit is to be given for teeth which have not erupted, unerupted wisdom teeth excepted.

(e) Artificial teeth not recognized.

Requirements of Her Majesty's Military Service as Regards the Teeth of Candidates for Commissions.

Issued by the Medical Department of the War Office, April, 1899.

The candidate's teeth to be in good order; loss or decay of ten teeth will be considered a disqualification.

Decayed teeth, if well filled, will be considered as sound.

Artificial teeth not recognized.

Requirements of Her Majesty's Military Service as Regards the Teeth of Recruits.

April, 1899.

That he possess a sufficient number of sound teeth for efficient mastication.

The acceptance or rejection of a recruit on account of loss or decay of several teeth will depend upon the consideration of the relative position of those which are no longer effective; thus the loss of several teeth contiguous to each other in the one jaw, leaving none to oppose those in the other jaw, would be a cause for rejection, but not the loss of a similar number distributed between the two jaws and in different positions. Again, the loss of many teeth in a man of an indifferent constitution would point to rejection, while a thoroughly robust recruit who has lost an equal number might be accepted.

The position taken by the British government will give the people of that government a higher conception of the importance of possessing perfect dental organs. This act will tend to register the profession of dentistry in the catalogue of scientific callings.

Much missionary work will be needed ere a like recognition be paid to dentists in the United States. It is to be regretted that our country, which is so pre-eminently ahead of other nations in matters pertaining to personal comforts and humanitarian institutions, should be so backward about rendering dental attention to the poor as does Germany, or as tardy in perceiving the good which would come from establishing rigid dental inspection in recruiting an army as does old Mother England.

No doubt the American dentists observed that the Surgeon-General of the United States recently found it necessary to give some attention to the dental needs of our soldiers and sailors at the Philippines, and

especially at Guam, where the naval boys are suffering intensely from dental and oral affections. The facts in the case are too clear to need elucidation in a dental journal, but a dentist was dispatched to Guam. He was listed as a steward on one of the gunboats and is to receive \$60.00 per month. Now it behooves us to act earnestly, if we hope to be given any recognition, and all interested in this matter can find a willing correspondent in Dr. M. F. Finley, of Washington, D. C., who has been delegated by the National Dental Society as chairman of a committee for this purpose, and his reasons for the delay in the passage of a bill through Congress can be found on page 54 of the "Proceedings of the National Dental Association of 1899." This will form excellent reading matter for all who hope to aid in establishing a dental surgeon in the War Department at Washington.

Well, the International Dental Congress held at Paris has, in many respects, made a glorious record, and it will be chronicled in dental history as having been a "mile stone" in the phenomenal march of our profession. Its purpose was noble, and its influence will be felt in the most remote regions of civilization.

The Paris Congress.

By J. F. McCREA, D. D. S., Minneapolis, Minn.

I think I might better make four classifications, and say, the best of the essays, best of clinics, best for the dentist, and best from intercourse with the members of the Congress.

Dr. C. S. Case, of Chicago, read the best essay, aided by slides, projected upon a screen, that it was my pleasure to hear. Its title was "Principles of Dento-Facial-Orthopedia;" he showed a scientific and masterly handling of the subject that produced astounding results in the restoration of deformities of the face. Often changing completely the contour and expression of a face that was positively repulsive into a handsome and kindly expression. I am aware that this subject does not interest as many as the preparation of cavities, or a kindred one, yet I will say that it is one showing a great deal more study and individuality than one of the more popular subjects. And I believe its field is many times greater than we realize. We do not have to be specialists in Orthodontia in order to make use of it, if we can make suffering humanity (for that is what a very homely person is) more beautiful!

Of the clinics I think Dr. Brunton's of Leeds, England, had the most novel thing in the way of having just the kind of clinic material one wants at a society meeting. He had cast a skull of white metal, with the lower jaw springing shut. To the jaws could be easily attached, by a single screw, a set of natural teeth that had been previously occluded and arranged in fusible metal.

We all know how difficult it is sometimes to get just what we want at clinics. Hence I called this the best and most novel, for it furnished that long felt want, in that the skull could be strapped to the head rest of any chair and the operator would for all practical purposes be working upon a real patient.

The best for the dentist, Dr. Bernheim, of Paris, read a paper upon "Tuberculosis of the Mouth and Precautions to be Taken by the Dentist," not only for their own health, but for the benefit of the patients that followed tubercular ones.

A dentist from Colorado, who, owing to his location had especially good facilities for seeing this class of patients, was very fearful lest this tubercle bacilli be communicated. I mention this because it is imperative that we care for ourselves especially well, not only in this way, but in a dozen other ways are we daily subjected to over indulgence in muscular and nervous strain, bad breaths and odors, nervous and excitable temperaments. All of which tend to disintegrate the last few milestones we might otherwise pass on closing life's journey.

Lastly, the Best from Intercourse with the Members of the Congress. This I believe to be the most beneficial and certainly the most pleasant part of any dental meeting, but more especially this meeting, because it brought together such a heterogeneous lot of men that it was a great privilege, as well as a pleasure, to meet, converse, and exchange ideas with them, relative to incidents of office practice. Undoubtedly these informal social discussions had more to do in bringing about a better feeling of common brotherhood and good fellowship between the dentists of the old and the new world than had ever previously existed or than anything else had ever been able to do. We were better and more quickly able to arrive at understandings where a *tete-a-tete* could be indulged in and questions and answers certainly more amicably adjusted.

Care of the Teeth.*

By W. H. JONES, D.D.S., Clinton, N. Y.

The teeth are doubtless the most wilfully neglected of any of the parts of the human body; could they be kept absolutely clean, decay would be practically unknown. Perfect cleanliness is impossible, but other conditions being normal, caries is lessened in proportion as care is observed and cleanliness obtained. Purity and cleanliness of the mouth, and sound teeth, are requisite for the proper appreciation of and use of the staple foods and delicacies so necessary for the human body. Thorough mastication is an inestimable aid to digestion and assimilation, and the maintenance of health.

According to trustworthy data, perhaps not more than twenty per cent of the population of this country take even imperfect measures toward caring for these most important organs. In other countries the percentage is considerably less. It is confidently believed that less than five per cent of our population take proper precautions in cleansing and caring for the teeth and gums.

Many of the governing boards of the charitable institutions and asylums in the United States, England, France and Germany, are aware of the great advantages which accrue to the general health of the inmates as a result of proper care and treatment of diseased teeth. Dentists visit such institutions and asylums at regular intervals and place the teeth of the inmates in good condition. Instructions are given as to simple and effective methods of cleansing both teeth and gums. The tabulated results of the regular and systematic visitations referred to show remarkable improvement in the general health of those treated.

Asylums and homes in which large numbers of children are confined should be regularly visited by competent dental surgeons. Simple instructions should be given to the children concerning the care and preservation of the teeth. During the intervals between the monthly or bimonthly visits, the attendants should record the names of such as complain of toothache, or pains in the facial regions, and bring the affected ones to the operator for examination and treatment at the next

* This paper is admitted to our pages because it seems admirably adapted for the education of the public. In localities where the public need instruction dentists might request their local papers to clip this article.—EDITOR.

visitation. Under such a system one day each month should be ample to care for the teeth of from two to three hundred children. The fillings required are easily and almost painlessly inserted, at a nominal public expense, which is more than compensated by the improved health of the children resulting therefrom.

**Care of
Deciduous
Teeth.**

The baby or deciduous teeth are twenty in number, ten in each jaw. The two lower front teeth, or incisors, appear first, usually when the child is about six months old, although sometimes later. The upper front teeth, or incisors, soon follow, then two more front teeth or lateral incisors in each jaw; so that when the child is about ten months old, eight teeth have cut through the gums and made their appearance. These teeth should be cleansed daily from this time, either with a soft, clean piece of cloth dipped in water, or else a soft bristled tooth-brush, being careful to cleanse and dry the brush after using.

The first four baby molars, or double teeth, appear from the twelfth to the sixteenth month. The cuspids, four in number, commonly called "eye" and "stomach" teeth, are cut from the fifteenth to the twentieth month. The four second molars usually appear during the third year. The lower teeth of each class are usually cut before the upper.

The baby teeth should be carefully and frequently examined, and especially at any indication of decay, or complaint of pains or toothache the child should be taken to a competent dentist, the offending member filled and the advice or directions of the operator strictly followed. The baby teeth should receive constant attention that the food may be properly masticated. Mastication stimulates the blood supply, develops the jaws and the permanent tooth germs. Foundation is here made for a strong and regular permanent set of teeth. Habits of care and cleanliness are also formed which will be followed easily as the patient grows older. The baby teeth should never be extracted without the advice of a competent dentist, for the reason that irregularities of the permanent set are often induced by premature or irregular extraction of the deciduous teeth.

**The
Permanent
Set.**

The first permanent molars, or double teeth, appear when the child is about six years of age, and before any of the baby teeth are lost. These most important of all the teeth are usually neglected under the impression that they are deciduous teeth and will be replaced. These molars should be cleaned carefully and examined frequently, as they are usually more liable to decay than any others of the permanent set.

The permanent front teeth, central and lateral incisors, appear between the seventh and ninth years. The baby incisor teeth should not be extracted prematurely, or an irregularity may ensue. It is a commendable plan to consult the family dentist and follow the instructions given by him. The bicuspid, or pre-molars, take the place of the baby molars and are cut some time between the tenth and twelfth years; these are quite liable to decay, and should be frequently examined.

The second permanent molars usually appear at or about the age of twelve. The cuspids ("eye" and "stomach" teeth) are a little later. On account of the premature extraction of the deciduous molars, and the crowding out of the deciduous or temporary cuspids, the "eye" teeth (upper cuspids) frequently erupt out of the line of the arch and produce an unpleasant irregularity, unless speedily and effectively corrected. In such cases the dental adviser should be consulted at once.

The third molars, or "wisdom" teeth, appear at any time after the eighteenth year, and sometimes the eruption of these teeth is attended with much pain and discomfort. The lower molars are more liable to cause trouble than the upper. The symptoms attendant upon the difficult cutting of these teeth are varied, and in some instances obscure. A deep-seated, grinding pain, seemingly crawling up to the temporal region, along in front of the ear, and down the neck, difficulty in opening the mouth, painful mastication, and sore throat, are the reliable advance guards announcing the eruption of these teeth. The skill and advice of the dental surgeon should immediately be called upon. He will relieve the undue pressure and prescribe a soothing mouth-wash.

The teeth decay most rapidly while children are growing and developing, i. e., between the ages of six and twenty. Decay in the first stages is caused by the fermentation of foods in the mouth—or rather on and between the teeth. Destructive acids are formed which soften the enamel, or hard outer shell of the teeth, and culture beds are provided for decay producing bacteria, millions of which are always present in the mouth waiting a favorable point of attack.

Causes of Caries.	Typhoid fever, anemia, over-study, trouble, great mental strain, lowered vitality and pregnancy all tend to induce decay. In fact, decay of the teeth is frequently arrested by correcting a constitutional disturbance, and resting the overstrained and overworked nervous system. La Grippe is also a prevalent factor as a predisposing cause of rapid decay. "Grippe toothache" and death of the pulps in filled teeth, which have been apparently in good condition for years, are frequent accompaniments of lowered vitality and nervous exhaustion preceding
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and following this disease. The teeth should receive the best of attention during and after an attack of La Grippe; and a visit to the dentist is earnestly advised.

Women are more liable to suffer from decay than men, because of more sedentary lives, abnormal menstruation and pregnancy. The latter is undoubtedly the greatest single promoter of rapid decay. The teeth should be carefully and frequently examined during this period, and alkaline waters used daily. Lime water, one tablespoonful; water, one-half water glass full; or Phillips' Milk of Magnesia, two teaspoonsful to a glass of water—cleansing the teeth after each meal and upon retiring, will be found a most valuable preventative against decay and sensitiveness during this period. Gastric disturbances should be corrected by the physician.

**Deposits
on the Teeth.**

Tartar is a mineral deposit, and usually does not form upon the teeth before the fourteenth or fifteenth year; still under certain conditions it may accumulate even earlier. This deposit forms quite rapidly upon the teeth of those who suffer from gastric ailments, and in the mouths of children of rapid growth, especially those who are allowed their fill of sweet meats and to soak their foods. In the first case an excess of acidity is produced, while under the last condition the teeth and gums are not stimulated by mastication. The food is not properly prepared for digestion, and an excess of acidity is produced both in the mouth and stomach; "green stain" and tartar form on the teeth, the stomach rebels and indigestion follows. The salivary secretions which enter the mouth through various ducts or little canals may be considered as the outflow of several miniature mineral springs. As these currents enter the mouth, if there be present an excess of alkaline or acid secretions, the lime, sodium and potash salts which are held in solution in the saliva, are precipitated or thrown out of solution on coming into contact with the abnormal secretions of the mouth, and are deposited on the teeth.

This accumulation gathers on the teeth at the gum line. It produces an irritation and consequent inflammation of the gums, and unless removed encroaches upon the process, or portion of the jaw which surrounds the roots of the teeth, inducing an absorption or recession of the process. The teeth may then become loose and will ultimately drop out or call for removal. Tartar gathers very rapidly upon teeth which are not used in the process of mastication; the very act of mastication stimulates the mucous and salivary secretions and mechanically cleanses the teeth. Tartar should be removed at least twice a year in those mouths in which the accumulation seems to form quickly. The operation is

comparatively painless, and with the improved and delicate instruments now used is easily and quickly performed.

Green stain is a viscid deposit or discoloration which has heretofore been but casually mentioned. It forms at the gum line of the incisors, cuspids and sixth-year or first permanent molars. This stain frequently appears on the permanent front teeth as soon as they are cut. It is found on the baby teeth, but seems to form more quickly and freely, and has a more injurious effect upon the permanent set. Green stain is probably produced by the rapid formation of lactic acid in the oral cavity. The salivary and mucous secretions are viscid and stringy. Particles of food cling to the teeth along the gum line and rapidly decompose, producing acid and acid forming germs. The teeth at this period are peculiarly liable to decay, and the enamel is easily disintegrated under these abnormal conditions. The stain should be thoroughly removed and the teeth polished. Food should be masticated slowly and carefully, thus stimulating the salivary glands. The starchy foods are then thoroughly prepared for assimilation and the hyper-acidity is thus corrected. The teeth should be carefully cleansed after eating; thorough mastication and cleanliness will render the saliva clear and cleansing, and the teeth and gums hard and healthy as well as free from stain.

Acid erosion of the teeth is a most aggravating and troublesome condition, especially noticeable in the case of visitors to great fruit districts. Visiting such localities at the times of fruit gathering, the temptation to inordinate indulgence is experienced in a manner unpracticed by permanent residents, and the healthful but highly acid nature of too much improperly digested and assimilated material, together with careless cleansing, produce a great excess of acids and the subsequent erosion. The first indication of this affection is a feeling of the teeth being "on edge," sliding upon each other with a grating, sticky sensation when closed, and a feeling of roughness when the tongue and lip come in contact with their surfaces. The enamel is rapidly disintegrated and pitted, forming fine culture beds for decay producing germs to develop and work upon the dentine or body of the tooth. The remedy is simple; after an acid fruit has been eaten, the teeth should be thoroughly cleansed with a mild alkaline wash, a few grains of bicarbonate of soda (baking soda), Milk of Magnesia, or a teaspoonful of lime water in one-half glass of water, brushing the teeth and gums thoroughly.

When tincture of chloride of iron, or any of the dilute acids are taken internally, the teeth should be carefully cleansed with a solution of bicarbonate of soda in water, or with lime water. These remedies are frequently administered through a tube, but this method is of doubtful

value, as oftentimes the drugs become diffused in the act of swallowing. The safe method is to cleanse with the soda or lime water solution after taking the medicine, and thus surely counteract any ill effects.

Pyorrhœa and teeth which has baffled the skill and perplexed
Alveolaris. the ablest men in the dental profession ever since its recognition and attempted treatment. Even its cause is a constant difference of opinion. Some specialists claim that it is induced by a constitutional strain or systemic predisposition; others believe the difficulty to be entirely local. The disease usually occurs in the mouths of persons of a gouty, rheumatic or scrofulous tendency, and attacks teeth of sound structure and more than average hardness. A tartar or hard deposit is formed upon the roots of the teeth, and this substance acts as an irritant; inflammation is induced; a pocket or pouch forms around the tartar, and pus accumulates in the pocket. The process, or bone around the root, is gradually destroyed, and apparently perfect and sound teeth become loose, finally dropping out or calling for removal. The treatment which must be followed up persistently consists in having every part and particle of the deposit removed. Frequent visits should be made to the dentist, and upon the slightest recurrence of the trouble, the irritant should be removed. Perfect cleanliness and constant care are the masters of this disease, and by their means teeth which would soon be lost may be retained for many years.

Abuse commonly recognized necessity for keeping them
of the Teeth. clean, and of having decayed cavities filled, but also to their proper use. The teeth are too often recklessly abused. Though intended simply as aids in articulation, and for cutting and masticating of foods, they are often made to perform the services of knife, scissors, hammer and vise for various purposes. These members should never be used to bite threads or crack nuts, bite tips from cigars, or bend nails or pieces of metal, as is often done. Sudden and marked changes in taking iced drinks, ice cream, and other cold substances into the mouth, immediately after eating warm foods or drinking warm liquids, should be avoided, as the rapid change of from 80 to 100 degrees in temperature may produce violent toothache, followed by injury of the nerves of sensitive teeth.

Cleansing The teeth should be cleansed if possible after
the Teeth. each meal, and also upon retiring. It may not at all times be convenient to adhere to the above rule, and many persons succeed in keeping their teeth in excellent condition by brushing them thoroughly before retiring, using

simply the toothpick or silk floss after each meal. The advantages of cleansing at night are obvious upon consideration. The particles of food and other accumulations of the day, gathered mainly during the process of mastication, have not as yet had an undisturbed opportunity to ferment and acidify. During the hours of rest, however, this process of fermentation progresses more rapidly. The mouth being naturally closed during sleep, is warmer; fermentation is hastened and acids form more quickly. Hence, if the teeth are not brushed after each meal, they should be thoroughly cleansed before retiring. In proportion as cleanliness is observed, the chances for decay are minimized. The tooth-brush should have bristles of medium stiffness and should be so formed that it will easily reach all surfaces of the teeth. The most efficient brush yet devised, and the one which is usually recommended by dentists, was designed by Dr. M. L. Rhein of New York. This brush is known as the Prophylactic. It is made in different sizes, and the bristles are of varying stiffness.

The front surfaces of the teeth should be brushed from the gums toward the edges, that the bristles may glide between the teeth and remove the particles of food. Of course, they may also be brushed cross-wise, and the gums should also be lightly brushed. The grinding surfaces should be brushed from front to rear, with a rotary motion, and also cross-wise. The inner surfaces should be brushed by holding the handle of the brush at a right angle with the face of the teeth, and with an up-and-down movement of the hand, these surfaces may be thoroughly cleansed. Special care should be given the inner surfaces of the lower front teeth, which are frequently neglected, but most necessarily cleansed. The sub-lingual and sub-maxillary glands discharge their secretions under the tongue; tartar is rapidly deposited upon the surfaces of these teeth, careful cleansing of which will deter this deposition.

Children's teeth should be cleansed as carefully as those of adults, and the reward of good care will be appreciated as the child grows older. The brush previously mentioned, the Prophylactic, is made in a child's size with soft bristles, and if used in connection with the powder or tooth-wash hereinafter prescribed, the baby teeth, which are so often a source of unnecessary trouble to the child, will invariably remain comparatively sound and useful, until nature displaces them to make room for the permanent set.

**Toothpicks
and
Floss Silk.**

Toothpicks are quite generally used to remove particles of food from between the teeth, and are valuable adjuncts to their care, if a pick having the requisite qualities is used. Of the many varieties manufactured, there are only two types which can

be uniformly recommended—the quill pick, which is undoubtedly the best, and the sound, dense, wood pick known as the Japanese pick. The loose-fibered pine pick, and the ornamental varieties of gold, silver, and aluminum should never be used. The pine pick above mentioned breaks easily, and small slivers are often forced between the teeth below the gum line, causing discomfort and producing inflammation. The use of metal picks, pins, or the knife-blade, cannot be too strongly condemned, as any one of these may check or crack the enamel, though more frequently break the margin around fillings, and induce recurrence of decay, and finally their loss.

Waxed floss silk is an efficient accessory to the brush and pick as an agent in cleansing the teeth. A piece of silk eight or nine inches long is carried into each approximal space, that is, between the teeth, one after another, and carefully and steadily worked from the cutting edges to just below the margin of the gums, with an in-and-out motion of the fingers. The silk should be held by the thumb, index and middle fingers of each hand, the two former aiding to guide and control it. Silk is especially useful in removing shreds of meat, or stringy foods which may have become impacted between the teeth during the process of mastication. The silk should be used cautiously between such teeth as have large fillings, for otherwise the strands may catch a rough edge when, if undue force be exerted, the filling may be endangered. Should the silk at any time catch, draw it out sideways, or cut it off. A dentist will smooth and polish the rough filling in a few moments, and remove the piece of silk strand. Several manufacturers prepare the silk properly and put it up in neat pocket holders, in which form it may be purchased at any pharmacy. Small rubber bands are also very efficacious in cleansing the spaces between the teeth, and are used in the same manner as described for the silk. The best sizes to use are those forming a circle about $1\frac{1}{2}$ inches in circumference; and the dark red rubber is purer and stronger than the black.

If, in traveling, or through some unforeseen circumstance, the tooth-brush is not at hand, there is still no excuse for neglect, for the following expedient is a valuable means of cleansing the teeth and gums, and may be anywhere adopted. The end of a towel, or some other clean piece of cloth, is wrapped around the index or middle finger, dipped in water; and with this improvised polisher, aided if possible by a dentrifice, the teeth may be cleansed, following with the toothpick, silk floss or rubber bands between the teeth, and rinsing the mouth after the operation.

The gums should always be lightly brushed and cleansed, as well as the teeth, for reasonable exercise and friction aid the circulation and render them healthy and hard. Many are uninstructed concerning the

necessity for cleansing the gums, and at their first tendency to bleed carefully avoid them, fearing injury to the tender, congested membranes. If the gums bleed easily, brush them lightly, but still thoroughly, and massage or rub with a bit of cloth dipped in a healing wash. If highly inflamed, however, the dentist should be consulted.

The ordinary dentifrices employed in cleaning the teeth and caring for the gums are well-nigh innumerable, but abnormal conditions, which may arise from time to time, may demand a special remedial dentifrice. Such cases, it should be needless to state, are to be referred to the dentist for his advice and treatment. Dentifrices may be broadly classified as follows: (1) powders; (2) pastes; (3) soaps; and (4) liquid washes; and while all are valuable and efficient when properly prescribed, certain forms have the preference under special conditions. Precipitated chalk is the basis of all powders, to which is added various ingredients, such as powdered orris root, pulverized castile soap, carbonate of magnesia, powdered cuttle-fish bone, levigated pumice stone, etc., flavored with sugar, saccharin, and such of the antiseptic oils as may be desired. The formulæ of all ordinary powders are practically the same, though colored and flavored to suit trade and individual preference. Many persons prefer to use a powder of known ingredients; and the following one, easily compounded, may always be recommended:

Precipitated chalk.....	three ounces.
Powdered orris root.....	one ounce.
Pulverized castile soap.....	one ounce.
Carbonate of magnesia.....	½ ounce.
Saccharin	15 grains.
Oil of lemon.....	20 drops.
Oil of rose.....	20 “
Oil of cloves.....	20 “
Oil of cinnamon.....	20 “

The given recipe will make a powder which may be used with impunity upon teeth of any structure, and from infancy to old age. A preparation of this kind may be applied as often as desired, but not necessarily as often as the teeth are cleaned. It is recommended, however, to use a liquid wash daily, and a powder two or three times a week. The brush should be dipped in water and sprinkled with a small quantity of powder; and afterward it should be thoroughly cleansed and hung up to dry.

Tooth pastes are powders with sufficient glycerine and honey to bring them to a creamy consistency. These form an agreeable and

efficient dentifrice, and are usually put up in unbreakable and very convenient collapsible tubes. Powders or pastes should be more frequently used where teeth become easily stained and discolored. Tooth soaps are a favorite dentifrice where there is no demand for the grit or polishing ingredients of a polish or paste, and as such they are desirable aids in cleansing. Pure castile soap is used by many persons, while others prefer a soap containing antiseptic and flavoring qualities.

Antiseptic mouth-washes have of late years come into popularity in caring for the teeth and mouth. The daily use of a good mouth-wash is highly recommended. There are several valuable formulæ, scientifically compounded, and on sale at all first class pharmacies. These are usually safe, reliable and inexpensive. Borolyptol, Listerine, Borine and Euthymol are standard preparations, and are prescribed and used quite generally by the medical and dental professions for treating diseased conditions of the mouth, gums, throat and teeth. The following formula has been used for years in the writer's own practice, with uniform success and satisfaction, producing a delightful, saponaceous, antiseptic tooth-wash, efficacious and agreeable at all times:

Tincture Quillija.....	two ounces.
Alcohol	one ounce.
Glycerine	two ounces.
Mixed oils.....	$\left\{ \begin{array}{l} \text{equal parts: peppermint, anise,} \\ \text{cinnamon and orange} \end{array} \right\} \dots \text{one drachm.}$
Benzo-boric acid.....	two drachms.
Distilled water.....	six ounces.
Tincture Cudbear, or cochineal.....	sufficient to color.

In cleaning the teeth and gums, from one to three teaspoonsful to one-half glass of water should be employed, as may be personally desired. The brush should be wet with the solution, though some prefer to dampen the brush in water, and pour on from ten to fifteen drops of the mouth-wash undiluted. Brush the teeth and gums thoroughly with either solution, and rinse the mouth well. In using a mouth-wash, the teeth are not only cleaned, but the entire oral cavity is antiseptized. As previously stated, the mouth-wash may well be used daily, in connection with the powder or paste two or three times per week. Of course, an infallible rule cannot be given; special conditions require special remedies, and the above directions apply when no abnormal conditions exist.

Dentistry as a scientific art and profession has made wonderful advances within the past twenty-five years. Improved and scientific methods have been evolved, and instruments practically perfected in design and construction. Operations which a generation ago were dreaded and often neglected on that account, both by patient and dentist, are

now easily and quickly performed. The intelligent use of obtundents, and other means now used in the best practice, combined with keen instruments and perfected appliances, render a majority of dental operations practically painless. Teeth and roots which were formerly ruthlessly extracted are now effectively treated and filled, and thus made to do good service for many years. The teeth should be examined by a reliable dentist at regular intervals. After severe illness, and in all cases of deficient vitality, these members ought to receive special care. When they are of poor structure, and have been heavily filled, frequent examinations should be the rule, as the margins of enamel surrounding the fillings may break or decay. During mastication weak margins are often broken; and if taken in time, broken or defective portions may be permanently repaired; but when neglected, decay progresses rapidly, and sooner or later fillings call for removal.

Severe complications, ophthalmic, aural, nasal and antral, frequently arise through obscure lesions of the teeth. Facial and temporal neuralgia are usual results of reflex irritation of the nerves, due to a diseased tooth or root. The medical specialist dealing with lesions of obscure diagnosis finds, upon consultation with the expert dentist, that frequently the trouble is ended by treatment or extraction of troublesome teeth. With reasonable care and attention the teeth ought to be preserved far into old age; therefore, always consider well before having a tooth extracted. The dentist who has the welfare of his clientage at heart will never advise the removal of a tooth unnecessarily. The underlying truism has perhaps never been better stated than in this citation from Don Quixote, "For thou must know, O Sancho, that a mouth without teeth is like a mill without stones; and that a tooth is more precious than a diamond."

Dental Hygiene.

C. PERCY HEALES, D.D.S., Philadelphia, Pa.

In these days of medical research, when out of chaos are shaped the delicate agents which pertain to elevate and maintain a high standard of excellency of that perhaps most necessary science of this our mortal world—the prevention and alleviation of those ailments of the human physical economy—our attention is arrested here and there by many noble and gratifying results.

**Preventive
Medicine.**

Let us look, for instance, at the first and most important adjunct of medical and sanitary effort or jurisprudence as applied to the prevention of disease. Truly, the "ounce of prevention, etc.," theory has held in the past, and still holds, an exalted sphere in many a thoughtful mind. On all sides, efforts, both foreign and domestic, are being put forth to check and allay infectious and malignant disease. Here we have the bubonic plague; there, the "yellow jack," while minor afflictions of persistent tenacity, though of less fatality, keep regiment on regiment of untiring humanitarians ever combating against great odds. Perhaps as never before, the phalanx of skilful hands and educated minds are thrown in unison against the onward press of ever-prevalent disease. Slowly but surely this vast corps of workers have had forced upon them the necessity of prevention as the most effective missile to hurl at this formidable bulwarks of human affliction. With this in mind, in comparatively a short period have sprung into existence effective and unique agencies, decidedly efficient and fruited with lasting results.

The most practical method by which to combat disease is, without doubt, that of bacterial extermination. Under this head, we find sterilization by fumigation and medication; i. e., germ destruction by burning of those agents inimical to fever-laden creations of lower life, and inflammatory irritants, enemies of normal conditions; also by those chemical death dealers, both solid and fluid.

To such a height has sanitary regulation rightfully attained, that not only has the old-time cesspool become a factor of the past, but individual responsibility of when and where to expectorate holds one in abject terror of the consequence of a moment's absent-mindedness in the ejection of a thimbleful of surplus saliva within certain prescribed limits. Not only is one's physical anatomy open for search from head to foot—every "hole and corner," inside and out, as a probable suitable lodgment for the enemies of health—but the secret periphery of our mortal individuality is in great danger of undergoing a violent overhauling—bacilli, sparilli—there are enough and to spare.

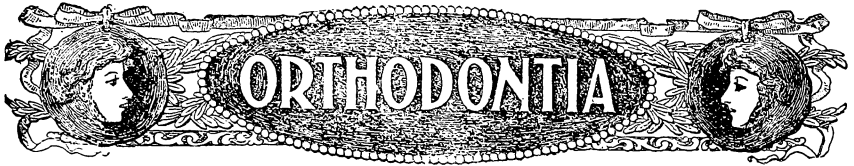
**Filth in
the Human
Mouth.**

Upon being interrogated as to what part of the human body is most suited for the lodgment, nourishment and propagation of the most varied and violent germs of disease, how many would give the credit to the oral cavity—the mouth and adjacent parts? Such is the case, however. Aided by heat and moisture, the mouth is a veritable hotbed where teeming millions of bacterial organizations flourish and multiply. Not only do they attack the deli-

cate structures of the mouth, but they are carried throughout the whole alimentary tract, being either cast off in case of vigorous physical condition, or assimilated into the blood and tissue of the less robust. How important is it, then, that medical science has striven to check disease which has its beginning at the most important opening or gateway of all vital organism.

Sanitary regulation has reached so far on its onward march toward perfection, that it is now ably represented in the schools of many cities by an army of medical workers. If now represented by the medical surgeon, why not, in the near future, by the dental surgeon? Perhaps these little mouths do not need cleansing! Fortunate indeed is it for the M.D. that in most cases a "Run out your tongue" is sufficient. How his heart would ache if he followed a closer inspection of those arches of enameled projections—the teeth. Talk about the filth of a gutter, or even a Schuylkill! There are times when even these contaminated necessities are stilled, or throw off, in part, their mantle of filth; but the little brook of saliva, laden with germs from decayed tooth structure and putrescent pulp—"I go on forever!" The little rivulet by the wayside has its variance from monotony with here and there a deviation from its onward course, but the steady flow of saliva must of necessity follow the straight and narrow way. It is by law too filthy to eject, and should, by the dictates of sanitary restriction in many cases be too dirty to swallow. The public would cry out against such a step in modern sanitation on account of the expense of a few dollars once a year in the cleansing of the oral cavity and its contents. But why not give it to the Dental Surgeon in the cause of prevention, as well as to the Medical Surgeon for cure? If the important adjuncts of modern cleanliness and hygiene were taught to the young in our schools there would be a few more pleasant smiles from the adult members of this enlightened age; society at large would hold fewer faces behind fan and programme when giving vent to healthy mirth. The silk hat has descended from many generations; the tooth-brush, from but few.





Reply to an Adverse Criticism of Fixed Appliances in Orthodontia.

By RICHARD SUMMA, D.D.S., St. Louis, Mo.

In criticising another's methods, let us avoid rash conclusions formed by a superficial attempt to use another's methods or by merely reading a description of such methods, "in which the salient features of insuring success are not mentioned."

It is, indeed, a pity that even men of ability at times find it unavoidable to refer, as the source of knowledge, to a book which is merely a compilation of the methods of others. No man can give correct detailed descriptions of methods which he himself has not tested. I take the liberty at this time to offer a quotation from the preface of the work of a well-known author: "There is not a case described that has not occurred in my practice. There is not a method advocated that I have not tested.—The result is that I do not give detailed directions for carrying out methods which I have not attempted. This, of course, makes the book incomplete from that standpoint; but I prefer this to being quoted as authority for that which I have not myself tested, as too many have been already." Oh, how I would that more authors were of this belief! The benefits accruing from carrying out such beliefs must be plain to every logical mind.

The provocation for penning these lines, is an article entitled "Simple Methods in Orthodontia," published in the September number, 1900, of the *ITEMS OF INTEREST*.

The author of that article expresses his belief that the trend in the correction of dental irregularities has been in the direction of complicating the appliances. This being due in a great measure to most of the writers upon the subject in recent years being more or less "specialists." If this allusion be intended by its author as irony, let

me say that many of the dental profession are thankful to these pioneers in orthodontia and I am confident that even the author of the above-mentioned article would recognize a few of the benefits derived from the work of these more or less "specialists" if he were *thoroughly* acquainted with their methods.

It may not be inopportune here to mention the greatest achievement of one of these more or less "specialists": "The Classification of Mal-occlusion," published in the *Dental Cosmos* of March and April, 1899. This classification is the unmistakable key to the correction of mal-occlusion. Its simplicity and absolute correctness renders easy of comprehension otherwise perplexing abnormalities. A ready understanding of such abnormalities cannot but lead to a simplifying of our mode of procedure in such cases. The time has arrived when *thorough familiarity* with this classification of mal-occlusion is indispensable to every worker in the field of orthodontia whether or not he be a "more or less specialist."

Undoubtedly all agree with the author that the appliance must be constructed so that it will not only accomplish the desired result, but that it can and will be worn all the time during the progress of the work with the least discomfort possible.

He then divides appliances into removable and fixed appliances. At this point the author begins to announce his preference for the removable form. He sees fit, and justly so, to attack the "Angle system" as the representative system of fixed appliances.

While the Angle system at all stages of its evolution was inferior to none, we must when comparing this system with others of the present day consider its climax, the expansion arch.

The first objection against the Angle system the author of "Simple Methods in Orthodontia" proclaims, is that the cemented or clamped bands usually come off at the most inopportune time.

I am sure that this objection can only be attributed to lack of average skill in fitting such bands. The grade of German silver which is at present provided for use in the Angle system is of such quality that it can easily be adapted to the teeth by anyone possessing sufficient skill to undertake the correction of mal-occlusion. Proper manipulation employed in fitting a tooth band will attain the same proportionate result as proper preparation of cavity and proper manipulation of filling material will attain in filling a tooth.

Objection second: "Again if a patient during the progress of the work is taken sick and cannot come for perhaps two or three weeks, and the appliances come off, it may happen that all of the work accomplished previous to that time would have been lost."

It is a *fact* that properly made bands do not come off so easily that the operator need worry. In case of sickness, fixed bands and the expansion arch are *much less* objectionable than any removable form of appliance, for the teeth can be held at any stage with the least possible discomfort.

Objection third: The author fears that since the clamped bands are not hermetically fitted, they invite decay.

As to injurious effects of these clamped bands, we need entertain no fear. By adopting reasonable prophylactic measures, practical experience *has demonstrated* such injurious effects as nil.

Objection fourth: "Still another objection, a very serious one, lies in the fact that when any large number of the teeth are to be moved, such as in spreading the arch and rotating several teeth, including the movement of ten or twelve teeth, this system becomes most complicated."

Just in treating such cases as described in objection, the Angle system is the simplest and most efficient.

No matter what method any one may choose to use in any given case, to achieve success, *thorough* familiarity with every detail pertaining to that method is prerequisite.

The appliance of the Angle system, to which reference is made in Figure J¹, by the author of "Simple Methods in Orthodontia," was in its day very good. However, a little careful inquiry will reveal to the author that this appliance was a mere step in the evolution of the king of appliances, the *expansion arch* of the present day.

It is not my province to give a detailed description of the Angle system. In this article it is merely my desire to counteract the author's misleading arguments sufficiently to cause him and others interested in orthodontia to obtain a better understanding of the Angle system before attempting to criticize the same.

On page 655, ITEMS OF INTEREST, 1900, the same gentleman states: "Perfect impressions should be taken with modeling compound of both upper and lower jaws."

"*Should be taken*" is right; "*cannot be taken*" (in modeling compound) would sound more correct to many. In order to remove an impression extending into an undercut, the hardened impression material must either drag or break. It is an indisputable fact that modeling compound drags. Therefore, no perfect model can be obtained from such an impression. From a plaster of paris impression taken according to Dr. Angle's method, a perfect model can be obtained. Such models need undergo no repairs at the point of the engraver's pencil. They can face the photographer's camera with a clear conscience. In

proof of this statement, I refer to cuts accompanying the article entitled: "A Few Interesting Cases of Dento-Facial Deformity" appearing in September number of *ITEMS OF INTEREST*, 1900. I leave the result of a comparison between these models and the models used in illustrating "Simple Methods in Orthodontia" an open question.

To criticize in detail the many fallacies the "Simple Methods in Orthodontia" would overstep the bounds of my original intention. Suffice it to say that these simple methods are void of fundamental principles.





A Case of Arsenical Stomatitis.

By DR. J. ALLEN JOHNSON, Smyrna, Del.

I have, below, endeavored to give briefly the clinical history of a case of arsenical stomatitis, which, while not of unusual occurrence in dental practice, yet commands special attention owing to the painful and rather alarming symptoms attending its development. On September 16, Mr. J. presented himself for treatment. Examination found large occluso mesial cavity in the inferior right first molar extending beneath the gum margin. Removing the carious matter and softened dentine, the surface of the pulp was found to be exposed and badly ulcerated.

Devitalization was determined upon, preparatory to which the surface of the exposure was first treated with phenol, then wiped with pledget of cotton saturated with formalin. A small piece of devitalizing fiber having been placed on the exposed pulp, the cavity was sealed with cement.

As it was with the greatest difficulty that the cavity could be kept dry (or comparatively so), and fearing there would be some leakage of the arsenic, the patient was instructed to report two days later, but as too often occurs, an opportunity was not given to examine the case until September 29 (just thirteen days later), and the patient complained of tenderness of the gums surrounding the superior incisor teeth. The gums had assumed rather an inflamed appearance. An appointment was made for the following afternoon, September 30.

Patient passed a restless night, complained of severe pain and tenderness of the gums, difficulty of speech and soreness of the throat.

Examination showed a general inflammation of the gums and mucous surfaces of the mouth combined with inflamed tonsils. Several

large ulcers were found on the inside of the lips and cheeks, also on the under surface of the tongue near the frenum. The tongue was somewhat swollen and covered with a brownish yellow mucous; saliva thick and stringy with a tendency to drooling; swallowing and expectoration difficult; odor of pus on the breath. What appeared to be a thick yellow mucous covered the gingivae, but an attempt to wipe it away with cotton disclosed the fact that it was sloughing gum tissue, and an examination of the ulcers showed them to be circumscribed areas of mucous surface, presenting all the pathological characteristics at the gum margins. While there seemed but little disturbance of the tissues adjacent to the tooth treated and containing the arsenical application, yet from the conditions present, the case was diagnosticated as arsenical stomatitis.

**Treatment of
Arsenical
Stomatitis.**

The pulp was immediately removed and the tooth filled with cement. With a sharp chisel, all or as much as possible of the necrosed matter was removed, the gums and ulcers painted with iodine and aconite in equal parts. Instructions were given the patient to avoid the use of stimulants, and to confine the diet to fresh fish, eggs, milk and oranges or other fruit. To take one ounce of rochelle salts upon retiring, and to use as a mouth wash,

R Potas. chlor. f. oz. I.
Fld. ext. hamamelis f. oz. IV.

M. et Sig.—One teaspoonful in $\frac{1}{2}$ glass of water every hour, as mouth wash. Also to use a 3 per cent solution peroxide of hydrogen every half hour in the same manner.

October 1.—Patient had passed another sleepless night, suffering considerable pain. Unable to partake of any solid food. Examination showed the sloughing to be more extensive than on the previous day; the general inflammation more violent. The sloughing tissue was again removed and treated as before with iodine and aconite.

The patient was instructed to continue the use of the peroxide of hydrogen, and to use as a mouth wash every hour, zinc sulphate, two and one-half grains to ounce of water. To take, of potassium iodide, five grains, three times per day. The ulcers and necrosed surfaces were then treated with dialized iron.

October 2.—Case presented the general appearance of the previous day, condition of the patient having improved. Swelling of the tonsils and submaxillary glands had disappeared.

Examination showed the sloughing process had ceased, indicating that the arsenic had spent itself or been neutralized.

The treatment prescribed the previous day was ordered continued,

with close adherence to instructions relative to the diet. The glycerite of tannin was substituted for the zinc wash with agreeable results.

The condition of the patient gradually improved, and at the expiration of one week he was entirely well.

My reason for bringing this case before the profession is because there are certain features about it that I do not understand, and hope that some one will make clear. Why so much destruction of tissue at points remote from, and so little destruction near the tooth in which the application had been made?

While convinced that the arsenic escaped in this case from the cavity at the cervical margin, yet the question has often arisen in my mind as to whether it is not possible for the oxyphosphate of zinc cement, when placed over an arsenical application, in the form of a thin mix, to take up a certain quantity of arsenic, which renders the cement when disintegrated in the saliva an irritating factor?





President's Address.

By W. J. TURNER, D.D.S., Brooklyn, N. Y.

Read before the Second District Dental Society, October Meeting.

Fellow Members of the Second District Dental Society: I wish to express most heartily my deep appreciation of the honor you have conferred upon me in electing me President of this Society. It is an honor which I consider a most high one, and it will be my earnest endeavor to prove worthy of it, and to occupy the position to the satisfaction of all.

A society is what its individual members make it. The work it accomplishes, and the good it will do, depend largely on individual effort. Let no one think that it matters not if he is lost in the crowd, and that his labor is not needed. That is a mistake often made, but the grand total of what is done, if that plan is pursued by any, falls just so much short of what it should be, and of what it would be had he lived up to his duty. While it is true that society reports are published, and one, although staying at home, may read of what transpires at meetings, still there is something to be gained by being present and feeling the personal influence that reading can never supply. Again, the larger and more intelligent an audience we have, the better talent we can command. Any man who undertakes to write a paper, likes to present it to a large and appreciative gathering, and it is but courtesy on the part of them who invite him, to give him the presence and attention of all.

If we follow this plan, it will be easy to obtain essayists of note, and after coming before us, such men will go back to their homes with the kindest feelings towards and much respect for the Second District Society. For a number of years we have been one of the most successful of societies. The talent which have come to us for our instruction and

entertainment has been the best of the land. Our audiences have been of good size, and discussions have shown appreciative and intelligent interest in subjects presented. Such interest has been strengthened by the social feature of our meetings and the pleasant surroundings of our meeting places. The dominant good feeling which has existed between us all has markedly added to the readiness with which we have taken part in the proceedings, for it is much easier to get up and talk to friends than to mere casual acquaintances. This should induce us more and more to foster friendship among our membership.

Are we satisfied with our past successes? However much we may be pleased with them, we are still anxious to progress. We received an increase in our membership last year, but not so great a one as we should. It is certainly strange that any young man entering the profession should not at once hasten to throw in his lot with those who are striving to elevate it. There is no doubt that the greater the number of intelligent and well educated men among dentists, the greater the esteem in which all will be held. There is no better aid to securing a broad dental education than in a regular attendance on society meetings, making one's self familiar with the topics presented and in taking part in the discussions thereof.

Different men accomplish results in different ways, and familiarity with the methods of others frequently show us where we can improve our own. We are continually solving problems, and this being the case, what will add more to our preparation for such than the general "shop talk" which always occurs when a number of dentists come together? It is so easy among them to informally talk over such matters, and by those who never speak in meeting, often most valuable points are brought out. Such men should be encouraged to have something to say also in the meetings where all might benefit.

Those who originated dental societies were exceedingly wise when they instituted among the order of proceedings, that of "Incidents of Office Practice." It is a formidable task for many to write a formal paper, and almost all find difficulty in securing a subject that they think they can treat in a sufficiently original manner to justify the attempt, and to do credit to themselves. But no such objection obtains to relating some incident that has occurred, or describing some method which one follows which would interest or instruct others. As an example of this may be mentioned, because it gave the writer such pleasure, Dr. Ottolengui's method of quickly removing a gold crown without mutilation. During the summer, a bridge that had become loosened at one end, while its attachment at the other by means of a gold crown was

**Incidents of
Office Practice.**

firm, was quickly and with the greatest ease detached by this method, and so that it was unnecessary to put it through the fire again as it would have been had the crown been split. You may be sure of my gratitude to Dr. Ottolengui for telling us last March (page 498, *ITEMS OF INTEREST*, July, 1900,) how to do it. May we not hear more in future under this head?

Other methods which admit of or require more extended treatment are followed by some among us, that the rest of us know nothing about, or knowing, do not realize their value, because their merits have not been presented in such a way as to appeal to us. These are worthy of formal papers, and if presented, are of untold value. As an example of this, might be mentioned the "Mummification of Dental Pulp." For a long time we have heard of this proceeding, but most of us thought that that result could not be reached with a sufficient degree of certainty to justify us in making the attempt. However, when Dr. Houghton gave us his paper last October on this subject and related his wonderful success, all heard him gladly, and many have since had the courage to follow in his footsteps.

Are there not others who can also lay before us such information of value? If so, they can help to elevate the standard of all, and thus increase the honor of their chosen profession.

I hope that the year just commencing will show increasing prosperity for our Society. As your president, I pledge myself to work to the best of my ability for its advancement and ask the cordial coöperation of all to the same end. Again, gentlemen, I thank you for the honorable position in which you have placed me.

The C. D. I. of Paris, 1900.

BY ALPHONSO IRWIN, D. D. S., CAMDEN, N. J.

Read before the Second District Dental Society of New York, October 8, 1900.

When the papers, and the reports of all the committees and clinics are translated into English; when the obscure history of the Congress and the schemes of its coterie of officers are revealed; when the translations of these essential materials are received by American writers: then a comprehensive and intelligent account of the Third International Dental Congress can be prepared. It is almost superfluous to add that it would take many months of arduous labor to complete the task and

that the product would fill a long series of voluminous papers or several large sized books.

Those of you who anticipate a pyrotechnic display of wit, learning and science, cutting sarcasms, sly innuendos and spicy aphorisms; new, startling and impressive discoveries; or even profound remarks in regard to dentists and dentistry abroad, will be disappointed. The varied emotions excited by new scenes, faces and environments, the limited time and the widely separated locations of the sections rendered only a kaleidoscopic view of the Congress possible.

A word painter would draw mental pictures of the opening, progress and close of this, the greatest International Dental Congress in the history of the world. But it must be left to your imagination to conceive the size, measure the work and gauge the influence of a body of men from all parts of the globe, of all colors, sizes, ages, languages and shades of opinions on professional topics.

In regard to the place of meeting, picture to yourselves a palatial edifice of large proportions, artistic design in the style of Louis the Sixteenth; systematically stored with condensed compilations of science, located on the banks of the historic Seine, part of the great International Exposition; in the most fascinating city of modern times, voluptuous Paris; and the most beautiful country on the Continent, sunny France.

In regard to the people who engineered the Congress, an orator would speak in the most glowing terms eulogistic of the race; its stirring history, its martial renown, its marvelous inventions, its valuable discoveries, its wonderful art, its advanced sciences, its powerful government, its progress from barbarism to the highest state of civilization. But this eloquent tribute to the nation must be supplied by yourselves according to your knowledge and mental endowments. It is only possible to address you in a matter of fact way from the standpoint of the dentist. Suffice it to say that there is one trait of French character towards which your attention must be directed:

You cannot annihilate the Frenchman. He does not know defeat. Caesar can conquer the Gauls, and load their king captive in chains behind his triumphal car into Rome. The Franks and Saxons in turn can rob, murder and oppress them. The crusades may deprive them of the "very flower of their chivalry." Bloody revolutions may startle humanity with their appalling tragedies and wanton destruction. Mankind may stand aghast at the guillotine and the crimson stream gushing from its myriads of victims. Waterloo may change the destiny of Europe, but the Frenchman knows *no* Waterloo. Today he has one of the best governments, and they are the best governed people on the Continent. You can *not* exterminate the Frenchman. You can thrash him, conquer his terri-

tory, empty his exchequer, annex his cities and provinces. You can bombard his towns, water his streets with his blood, and bury him under tons of earth and pound him down; but his progeny will rise again superior to disaster, and within thirty years they will have the *grandest* exhibition of the century.

With these introductory remarks we will proceed to the consideration of the Dental Congress.

The names of a few of the American delegates may be of interest to you, and the following are appended:

**American
Delegates.**

Official delegates of the United States Government:

Dr. John S. Marshall, of Chicago, Ill.

Dr. Trueman W. Brophy, of Chicago, Ill.

Dr. W. W. Walker, of New York City, N. Y.

Dr. Gordon White, of Nashville, Tenn.

New York was also represented by Drs. A. L. Northrop, S. G. Perry, O. E. Hill, E. A. Bogue, F. B. Keppy, G. A. Roussell.

Philadelphia was represented by Drs. S. H. Guilford, E. C. Kirk, E. J. Darby, Louis Jack, W. H. Irneman, I. N. Broomell.

Boston by Drs. D. M. Clapp and J. F. Dowsley.

The Connecticut State Dental Association delegated Drs. J. McManus, J. S. Parmele, C. F. Jones, E. S. Gaylord.

The New Jersey State Dental Society, Drs. C. A. Meeker, C. W. Holbrook and A. Irwin.

Other States were represented by delegates the repetition of whose names would lengthen this paper and serve only to weary you.

Upon arriving, each delegate presented his credentials at the General Secretary's offices, where a corps of assistants was engaged in receiving and registering delegates. Upon the payment of the fees, a card, containing your name and number, duly signed, certifying that you were a member of the Dental Congress, admitting you to the International Exposition, was handed to you, together with copies of the official bulletin, which was published daily and contained the programme, announcements and other information about the proceedings of the Congress. Enameled pins with "Paris, C. D. I., 1900," lettered upon them, were presented to the delegates to wear upon the lapel of the coat. The more favored ones also received a small button of narrow purple ribbons as a mark of special recognition, which admitted them to places, scenes and councils where other delegates were not welcome.

**Convening
The
Congress.**

The Third International Dental Congress assembled in Paris, August 8, 1900, under the honorary presidency of Prof. Brouardel, Dean of the Faculty of Medicine of Paris, and the acting presidency of Prof. Gariel, of the Faculty of Medicine of Paris, Member of the Institute and delegate of the government.

The members of the Committee on Organization took their places on the platform at the side of the president, together with the National Committees; the official delegates of foreign governments, of universities and societies, among whom were Drs. Harlan of Chicago, Walker of New York, Brunton of Leeds, Cunningham of Cambridge, Prof. Hesse of Leipzig, Drs. Frank of Vienna, Aguilar of Madrid, Grevero of Amsterdam, Prof. Lember of St. Petersburg, Liberg of Stockholm, Guillermin of Geneva, Baruch of Brussels.

The professors and directors of the two dental schools of Paris, Drs. Quedot, Ducourneau, Marinier, Ruy, and Bloemann, Dr. Martin of Lyons, Schwartz of Nimes, and Du Nux of Toulouse.

This imposing opening session occurred Wednesday, August 8, at 9.30 a. m., in the grand salon of the Palace of Congresses, which seats one thousand people. The members of the Congress present were so numerous that the hall was filled. The audience was brightened by the presence of a large number of ladies.

Dr. Godon, chairman of the Committee on Organization, opened the Congress with a discourse which was heartily applauded. The tenor of his remarks was as follows:

**President's
Address.**

This Congress, said the orator, has been received officially by a delegate of the Government of the Republic. After having given welcome to the President of the Congress, to the delegates of the governments, universities, learned societies and schools, to the members of foreign National Committees. After having thanked the different bodies who have so graciously assembled from every corner of France and foreign lands to attend this scientific Congress, Dr. Godon described the role of the surgeon-dentist:

"The dentist is like a sentinel at the door of the human citadel. He takes part in its defense along with the physicians and surgeons. Often indeed, it is he who sounds the first alarm that the entire organism is in danger. He protects the region he is charged to guard against disease, and when it is destroyed, he restores it, and re-establishes its physiological function which was believed to have been lost.

It is just the peculiar character of this intervention which creates for him a position apart, among those who devote themselves to the preser-

vation of the human being. So that it can be said that Odontology is the most distinct, most special, most independent, among the medical sciences.

Dr. Godon then paid homage to the memory of all scientists and practitioners who have aided in the progress of the dental art. He expressed the wish that the next Congress may contribute equally to the realization of new discoveries. Then addressing himself to the members of the eighth section, Dr. Godon said to them:

"Modern dentists cannot be reproached with refusing their services to the poor. Today, the dentist, as well as the doctor, is every ready to devote his time and labor to them.

"Is dental suffering then due to the negligence of governments of every country, or to their ignorance of the progress of our art? If you think it is so, you should speak out firmly and resolutely, to the end that the permanent committee which will survive this Congress may raise such a clamor that the men charged to govern us shall hear it, despite their absorbing occupations, and that, in any case, if, after this Congress, any poor child, any laborer, any soldier, any sailor, shall still suffer from this carelessness one cannot say that odontologic science has failed to perform its duty."

The General Secretary then read his report and the history of the Congress. He showed by what safeguards its constitution had been surrounded and expressed the desire that this organization might last under the name of a permanent federation, whose duty it should be to work for the general good of the profession.

The treasurer's report assured the success of the Congress.

Prof. Gariel congratulated the Congress and complimented it in the name of the republic, welcoming the official delegates of foreign governments and all the members, and formally declaring the Congress opened.

The temporary officers were continued in their positions by acclamation and ballots were cast for the Honorary Chairmen of the Congress and the sections, resulting in the choice of Drs. Lecaudey of Paris, Brunton of Leeds, Harlan of Chicago, Hesse of Leipsig, and Forberg of Stockholm.

Addresses to the Congress were delivered by the representatives of the different countries, amid the enthusiastic applause of the audience.

<p>Language; Countries Represented.</p>	<p>The official language was French, but papers were read in English, German, Russian, Italian and the Spanish languages. The announcements were made in French, and consequently much valuable time was lost in securing the information wanted, the</p>
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location of the sections and the journey to the place of meeting. This was especially inconvenient for those who could not speak or read French. The sections, numbering ten, were scattered over the city of Paris, and when you are reminded that the city has two and a half millions of population, covers an area of twenty thousand acres, and is included in a circumference of twenty-one miles, you have some conception of the difficulties which had to be surmounted by a delegate from a foreign country.

The countries represented in the Congress were England, Australia, Canada, Belgium, Denmark, Finland, Spain, Norway, Sweden, Switzerland, Portugal, Italy, Germany, France, Mexico, United States, Japan.

With this review of the opening sessions, we will next turn to some of the most striking characteristics of the Congress, the progress made by dentistry and the lessons to be learned from the Third International Dental Congress.

The sectional divisions will attract your attention. They were ten in number.

Sectional Divisions.	The first section comprised dental anatomy, physiology and histology. The second section included special pathology and bacteriology. The third section constituted operative dentistry and special therapeutics. The fourth, general and local anaesthesia. The fifth, prosthesis, dental orthopaedia and simple restorations. The sixth, teaching of the dental art. The seventh, history of the dental art, legislation, jurisprudence, dentology. The eighth hygiene and public dental service. The ninth, practical demonstrations of operative dentistry and prosthesis. The tenth, miscellaneous affairs, museums, operating rooms, laboratories, electric apparatus and accounts.
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The sections are complete and exhaustive. They cover the ground in a masterly manner, and the classification of subjects is unusual, not to say unique.

A study of the papers presented at the C. D. I. leads to the selection of the following, a brief resumé of which is given. Others equally meritorious were read, but it is impossible to give them in the briefest outline, but the American papers are not referred to because they will be published in full at an early date, and then you can read them at your leisure.

**Paper by
Dr. Maurice Roy,
Paris.**

In an essay entitled: "The Teaching of the Dental Art in Different Countries," Dr. Maurice Roy, of Paris, concludes: 1st. That the dental schools founded by the professional associations are those which offer the best guarantee for progressive in-

struction. 2nd. The members of the teaching corps should be named by competitive examination. 3d. It would be well to add to the conditions of admission into colleges of all countries *three* years of apprenticeship in mechanical dentistry, as in England. 4th. The total length of studies ought to be five years—first and second years, a course in prosthesis, physics and chemistry; third year, prosthesis and a general course in medicine; fourth and fifth years, teaching technical, theoretical and practical; fifth, instruction in all parts ought to be given wholly in dental schools (believers in the co-education of the medical and dental students please take notice of the fifth conclusion); sixth, the practical work of operative dentistry ought to be made according to a graded system; after six months at least of practice on dummies; seventh, only professional men ought to compose State juries or at least to be in the majority.

8th. To appreciate the technical knowledge of candidates, examiners ought to have in hand all notes of practical work performed by the candidates during their term of studies.

**Paper by
Dr. S. Bernheim,
Paris.**

Dr. S. Bernheim, of Paris, in a dissertation on "Buccal and Dental Tuberculosis," refers to a large number of clinical facts which warrant the following conclusions:

Bucco-pharyngeal tuberculosis is more frequent than is generally believed. It can be primary, coming spontaneously in a subject free from general infective tuberculosis and remain in the state of local tuberculosis. It can be secondary, occurring periodically, in the course of a pulmonary tuberculosis. The localizations of this tuberculosis are variable. They can reach all the bucco-pharyngeal regions, lips, interior portions of the cheeks, gums, alveolar dental borders, maxillary bones, tongue, palate, palatal cavity and tonsils. The knowledge of this tuberculosis is indispensable to the dentist, who is frequently the victim of professional duty. Placed constantly before the buccal orifice, he may be infected if he does not take certain prophylactic measures. This knowledge is needful also for the patients themselves as much from a prophylactic point of view as to establish the early diagnosis of an efficacious treatment. For in the case of primary bucco-pharyngeal tuberculosis, when the affection is purely local, a rational therapeutic general and local treatment at the same time is almost always efficacious. A cure is the rule.

Dr. Charpentier, secretary of the Second Section, who presided in the absence of Dr. Frey, presented at the end of this communication, the following resolution, which should be proposed later to the general meeting.

"The surgeon-dentist should ask all his patients to gargle the mouth with an antiseptic solution before performing a dental operation." This would be a very useful prophylactic measure.

If the aim of the Congress was to make the papers the leading feature, they succeeded, for the papers were pregnant with choice contributions to dental literature and are therefore full of interest to the practitioner as well as to the student. But we must pass them and glance at the clinics in a general way.

The clinics illustrated the various systems of constructive appliances employed for the correction of irregularities of the teeth; replantation and implantation; demonstrations in operative and mechanical dentistry; methods of treatment of dental diseases, oral surgery and other operations of practical value.

The most interesting clinics for the general practitioners, who succeeded in seeing them, were by Charcot on hypnotism for hysteria, dipsomania neurasthenia, epilepsy, and other nervous disorders. Charcot was more talked about, and doctors were more eager to see his clinics than those of any other man in Paris.

The Frenchman's clinic which attracted the largest crowd, excited the greatest interest, and aroused the closest attention, was nothing more than the extraction of roots and teeth, using a strong Faradic current of electricity to render the operation painless. He was very dexterous in handling the forceps and manipulating the current of electricity. It was almost impossible to get close to the chair, owing to the throng of dentists around it, but it was evident that extractions were not always devoid of pain. Upon interviewing an American dentist who sat in the chair, he declared that he would rather submit to the pain of extraction than the shock of electric current through his nerves.

However, the majority of the extractions must have been painless. It was merely a matter of choice between enduring the shock of electricity and the shock of extraction. Opportunity was given to the dentists to test the strength of the current of electricity, and profuse explanations were made of all electrical details. It is evident from the interest manifested at this clinic as well as elsewhere in the exhibition and congress, that electricity is again prominently in the field as an agent for the painless extraction of teeth.

The C. D. I. of Paris demonstrated what dental conventions elsewhere have proved, namely, that clinics are the kernels in the wheat. Banquets, excursions, entertainments, paper, talk and blarney are the chaff, blown away by the first breath of air.

Clinics are the life of congresses as well as dental societies. It is not the man who tells you *how* to perform an operation that impresses you *most*, but it is the man who *does that* operation before your eyes. Then you carry away something valuable that you will make use of in your office.

Provide instructive clinics, and the success of your dental meetings is assured. Dentists will depart feeling repaid for the effort required in attending, and they will speak words of praise, if not words of enthusiastic commendation.

Good clinics will attract a large crowd from a long distance better than any other means that can be employed. Distance is no obstacle when something new, or novel, or of recent invention and introduction can be seen.

You can look down upon them if you want to. You can shrug your shoulders and pass them by. You can sneer at them all you please. Call them kindergarten dentistry. You can exhaust your vocabulary of wit and satire. You can luxate your inferior maxillary bone laughing at them, but *don't* fail to have good clinics.

American clinics at the meetings of the National Dental Association and the state societies equal and surpass Continental clinics.

Viewed from a practical standpoint, the clinics were of little value to an American. You can see as good clinics in the Auditorium at Asbury Park during the sessions of the New Jersey State Dental Society.

The American dentist who went to the C. D. I., 1900, clinics in the expectation of acquiring any new, original or striking ideas, methods of treatment, or implements of dental craft and cunning came away disappointed. At the same time the congregated talent of Europe, Asia, Africa and America were worth going to see, and the knowledge and experience gained by contact with the best dental minds of the world repaid for the expenditure of time and money.

There was one feature which it is to be hoped

Lessons

of the

Congress.

Americans will adopt in their clinics in the future.

The operator and the patient were enclosed in a coffin shaped railing about three feet high, from which a curtain was suspended, which prevented the

spectators from jostling the elbows of the operator or unduly crowding upon him, as well as protected the patient from the pressure so often unavoidable. At the same time there was a good view of the operation.

The coffin shaped railing, however, is too suggestive. Let us adopt some other form for the enclosure.

It would also be a step in the right direction for all congresses, dental

associations, conventions and societies to formulate and enforce a rule compelling those watching a crowded clinic, to move on, after the lapse say of three minutes, and give some one else a chance to see the operation. If he wants to see a later stage of the work or inspect some other feature of the clinic, let him take his place in a line of men formed for that purpose, and take his turn to look again.

Why should not clinics be conducted in a systematic manner? As it is now, there is always one position, facing the mouth, on the side of the patient opposite to the clinician where an operation can be seen perfectly. It is the custom now for one or more men to secure and retain this position throughout the most interesting portion, if not the entire clinic, to the exclusion of other dentists who have an equal right and as strong a desire to see the case. This disposition to monopolize clinics was especially noticeable at the Paris Congress of 1900, and the adoption of such a rule as has been outlined is recommended to European dentists particularly.

Among the results accomplished, the Third International Congress has established a basis for the unification of dental education.

A permanent committee, consisting of two representative dentists from France, Italy, Germany, England and the United States has been formed to adjudicate the different educational standards and systems of instruction in the universities and colleges. When the plans of this committee will have been consummated and adopted by the profession, one among the innumerable benefits conferred will be the international acceptance of diplomas from colleges adopting the approved method of dental education.

Adverse criticism of the Congress has been made by well-meaning dentists, unacquainted with the scope and designs of the work accomplished as well as unfamiliar with the French language. These hostile criticisms have been made under strong pressure of an emotional nature on the spur of the moment. Those who have given utterance to them would modify their views materially and speak words of praise instead of words of censure, if they were allowed time for mature deliberation.

The work accomplished by the C. D. I. of Paris, 1900, was enormous, far reaching in its effects and worthy of the most favorable consideration of the scientists of America.

It is impossible to touch upon the salient features of the congress without alluding to the deep-seated hatred which exists between the French and English races, and the effect it had in diminishing the number of the English dentists present and their contributions.

If it were not for the Exhibition, France and England would be at

war with each other. But France is very well aware of the fact that she must keep at peace with all civilized nations while the Exhibition is open if she would make it the success that she desires it to be, and I can assure you that the French are determined to make the Exposition of 1900 surpass all previous efforts in that direction. When the French determine to do a thing, they do not adopt any half-way measures. They are in earnest, and they will make the Exhibition and over five hundred congresses great successes if they have to bankrupt the treasury and overthrow the reigning power to accomplish that purpose. They are on "their mettle," and are straining every nerve, muscle and sinew, spending money lavishly, entertaining sumptuously.

Witness President Loubet's dining twenty thousand of his mayors recently in the Garden of the Tuilleries. They spread innumerable feasts and entertainments for foreigners as well as natives. All classes and conditions of men and women are feted anywhere and everywhere. Magnificent illuminations and gorgeous entertainments are of almost nightly occurrence. Gaiety and splendor reign supreme.

I had not been in Paris twenty-four hours before I was invited to a banquet, an excursion to Saint Germain and to have my photograph taken along with other members of the Congress. As a consequence of these diversions the war-like sentiment has been held in check, and good feeling has been re-established to a certain extent. Whether this state of affairs will continue after the close of the exhibition remains to be seen. But you can make up your minds that the C. D. I. of Paris has accomplished a beneficent work in promoting a friendly feeling between the professional men of the French and English nations. More than this, French diplomacy has established a better feeling between the dentists of all nationalities and paved the way for future success in other International Dental Congresses yet to be convened.

In striking contrast to the feeling existing between the French and English is the cordial greeting, hearty welcome and generous treatment accorded to you when they *know* you are Americans.

Personally my love for the moral and industrial French people has been deepened, and my respect strengthened. They are a most charming, active, virile, talented race, and their accomplishments in all directions are marvelous and excite the wonder and admiration of all who behold them.

France is a most verdant, prolific, delightful country to visit. It possesses a most salubrious climate. Its natives are gay, exuberant, overflowing with sunshine and laughter, always ready to spend your money for you (especially the ladies), and share most generously in any good thing which you may be fortunate enough to possess.

The Third International Dental Congress achieved a brilliant success numerically and financially as well as professionally.

Twelve hundred and eighty-seven members registered, and these figures were augmented by the arrival of other delegates.

A membership of this size has never before been attained by any International Congress. Its successful conception and execution reflects the greatest credit upon the skill and sagacity of its projectors.

Paradoxical as it may seem, this paper will close with the statement of my conviction that while Americans can afford to sit humbly at the feet of the Old World and study dental truths, critically inspect dental operations and closely examine continental methods of treatment, yet, in the same breath I would cast down the gauntlet at the feet of Europe and challenge the whole world to produce a better dentist than the *American dentist*.

Ethics—Advertising.

By W. G. CHASE, D. D. S., PHILADELPHIA, PA.

Read before the Central Dental Association of Northern New Jersey, Oct. 15, 1900.

Ethics Defined.

Ethics originally meant that which relates to character. At present it is a sort of all-comprehensive term, and, like charity, covers a multitude of sins. The term was first applied to the treatise of Aristotle, which is not concerned with character considered simply as character, but with its good and bad qualities.

The antithesis of "good and bad" in some form is involved in all ethical affirmation. It differs from Physics in the fact that Physics is concerned with what is, has been or will be; Ethics with what is "good" or what "ought to be," and its opposite. Goodness is commonly attributed to men from a consideration of the external effects of their conduct; and yet a certain quality of disposition, motive, intention or purpose, is essential to the perfect moral goodness of an action. In discussing the fundamental question as to what is good or desirable, we are led to carefully observe what men actually desire and to what they aim; and to analyze fully the process of voluntary action, as well as the emotional states that precede and prompt to it.

It does not matter for ordinary purposes, whether we speak of "right" or "good" conduct, "wrong" or "bad" motives. The common

notion of what is good for man, includes more than the common notion of what is right for him or his duty. It is the common belief that it will ultimately be best for a man to do his duty, and his real interest and happiness will be promoted thereby. It does not follow that the notion of duty and interest are to be identified, or that the connection between the two may be scientifically demonstrated. The connection is often regarded rather as a matter of faith.

It is presumed that man as a reasonable being, must seek his own highest good in this present life, and, therefore, that any laws he has to obey, must be demonstrated to be means to the attainment of this good, or particulars in which it is realized. It is not necessary for us to go into a discussion of how this moral faculty originated, so long as it is merely regarded as the faculty of knowing our true good, and its main causes and conditions. It is through the general conception of Ethics, that controversy or free will becomes important.

Man does not naturally inquire whether he is "free" or not to seek his own good, provided, he knows what it is, and that it is attainable by voluntary action. But when his conduct is compared with or runs counter to a code, the violation of which brings upon him punishment, the question will arise could he really obey the rule or law by which he is judged, for if he could not, it seems contrary to justice to punish him.

We, as dentists, have banded together, forming societies for our mutual benefit, and as men striving for the greatest good, not only toward each other as Dental Surgeons, but also as men, and incidentally, for the shedding of the effulgence of the bright light of progress and general good to humanity at large, established what is known as a Code of Ethics. The question is, what do we really desire? How far can voluntary action guide us and where must law begin, and where end? I am not going to answer these questions, for, I am sure I could not do it satisfactorily; so what I offer is suggestion only.

According to the Code of Ethics of the National Dental Association—it is unprofessional to resort to public advertising. This includes cards, handbills or signs of any and all description, calling attention to peculiar styles of work, lowness of price or special modes of operating. It is undoubtedly unethical so to do, and to an honest man repugnant.

A man upon joining an organization, should, before signing the by-laws, look carefully to the rules and regulations governing said organization. In order to be honest, he must live up to those rules, his duty if he is an ethical man ought to compel him, for therein would

lie his happiness. But it is just possible that self-interest will step in, and say, that to succeed in a business sense, he must break a part at least, of the code; herein you see would be a case where duty and interest would clash, and in many cases duty would be defeated, and a full-blown advertiser would sprout forth upon the public. There is another side.

A young man of small means, honest and ethical, whose ambition is to be one of the shining lights in his profession. It is essential that he secure recognition by the public, owing to a lack of money or friends to assist him in order that he may earn a livelihood. How is he to make himself and business known to the public? Advertise? Yes! But how? In what manner? Now if there were some honorable and aesthetic and ethical mode of advertising, it would be the means of bringing many people together, who are painfully groping and fumbling after each other in a sort of blind man's buff.

It is unfortunate that there is as yet no better directory than advertising, for men of all professions, who want work, to the very work that wants them. The word advertise, as you know, means "to notify," "to inform," "to give intelligence to," and the honorable man will be ethical, honest, in his advertising, and also take care not to offend the dignity of his calling.

Advertising has been resorted to in almost all ages. The Pompeians, for the want of newspapers, used walls and exposed surfaces, upon which they scratched their advertisements with a sharp stylus, or scrawled it in red chalk. Porson, the Greek scholar, remarks that a single newspaper published in Athens would be worth all the commentators of Aristophanes. The first Roman paper issued during the reign of Julius Cæsar, called *Acta Diurna* (Daily Doings), was an official organ and permitted no advertising in its pages! They have in Germany inflicted punishment for injudicious editing. In Britain, some fifty years ago, a duty was levied upon advertisements, which created much clamor, and was branded as a duty upon knowledge. The duty was abolished, I believe, in 1853, in compliance with the unanimous voice of the public.

You may well wonder who reads advertisements, unless you have had experiences in inserting a want advertisement or some other. If such an experience is yours, you have ceased to wonder. We as individuals must not think that because a subject or advertisement does not interest us, it interests no one. Human desires are the motive power of the world, and desire inarticulate will surely find its mate in desire articulate. We as ethical men of an honorable profession, must

keep clear of offense, and not set forth our knowledge or ability by windy puffing.

Advertising can be and is often done unintentionally, and no doubt, unwittingly, as in the suppression of a book or play. Some men seem to have the faculty of getting their professional attainments or business before the public gratuitously. Such a one was the late P. T. Barnum. He used to tell the reporters to say all the bad things about him they pleased, but not to forget to mention his show.

There is such a thing as being damned by a faint praise, which is also true in the converse form, praised by strong damns. It is not necessary for a dentist to resort to self-laudation in order to secure patients. Self-laudation places the advertiser as yet, in the barbaric stage from the view point of the artistic and æsthetic spirit.

Irrespective of the code of ethics, the æsthetically and ethical minded is placed by his natural reserve, and his desire to let the public know he is to able to benefit them, in a difficult position. The quack and vender of a worthless panacea, on the contrary, resort to high sounding names, epigrams and a so-called art in the street cars, and on blank walls, and thus by their windy puffing reap a fortune from the folly of those attracted thereby.





New Jersey State Dental Society.

Thirtieth Annual Session, Asbury Park, N. J., July 18, 19, 20, 1900.

Morning Session, Friday, July 20th, 1900.

The session was called to order by President Truex. The first order of business was the election of officers for the ensuing year, which proceeded with the following result: President, Dr. F. Edsall Riley of Newark; vice-president, Dr. William L. Fish of Newark; secretary, Dr. Charles A. Meeker; treasurer, Dr. H. A. Hull. Four members of the Executive Committee were elected, viz.: Dr. Herbert S. Sutphen, Newark; Dr. Oscar Adelberg, Elizabeth; Dr. William H. Pruden, Paterson; Dr. F. L. Hindle, New Brunswick.

Membership Committee: Dr. W. W. Hawke, Flemington; Dr. A. W. Irwin, Camden; Dr. J. L. Crater, Orange; Dr. W. Woolsey, Elizabeth; Dr. G. M. Holden, Hackettstown.

Dr. J. Allen Osmun was elected for recommendation to the Governor as a member of the State Examining Board.

On motion the amendment to the constitution and by-laws, authorizing delegates from the Southern Dental Association and the Central Dental Association, was passed.

The following resolution was presented by Dr. Sanger, and on motion adopted:

Whereas, In the opinion of this society all the good effect sought to be accomplished by our State Board of Examiners in offering their resignation to the National Board of Dental Examiners has been obtained; therefore, be it

Resolved, That we, the New Jersey State Dental Society, hereby respectfully request the New Jersey State Board of Dental Examiners to withdraw their resignation from the National Board of Dental Exam-

iners, and retain their membership in that body, in order that their good influence may be continued in national dental interests.

On motion of Dr. Brown it was decided that a committee be appointed, consisting of one member from the society in each county, to be known as the Committee on the Enforcement of Laws, to act in conjunction with, and under the direction of, the State Board of Examiners, in the prosecution of all cases of illegal practicing throughout the State.

The chairman of the Membership Committee reported that the committee had received and acted favorably upon the application for membership of Dr. D. G. Farrington, Caldwell; sponsors, Dr. H. S. Sutphen and Dr. G. M. Holden.

Thereupon Dr. Farrington was unanimously elected a member of the New Jersey State Dental Society.

The committee appointed to consider the president's address presented the following report:

Your committee to consider the president's address respectfully reports it considers it would be advisable for the legislative committee to present a bill exempting members of the dental profession from jury duty. We have no other recommendations.

DR. IREDELL,
DR. ADAMS,
DR. VINSON.

The Committee on Materia Medica presented the following report:

Report of Committee on Materia Medica.

New remedies are being put forward by the drug trade almost weekly. In many cases, from the trade literature and reports of cases, they seem to be the sought for weapons with which we can advance and conquer some of the many ills of mankind that come daily into our offices for alleviation. But, how often, after a few trials, do we return to some abandoned remedy, with a renewed faith in its efficacy, while its new rival remains unused in our cabinets.

There are, however, a few new things that call for mention this year. This is especially true of chloretone, of which so much has been said in our periodicals and meetings that your committee can add little evidence in its favor. Administered hypodermatically or internally, good results are reported, and it would seem at present writing that it may replace cocaine and eucaine, as well as phenacetine, antikamnia, salol and kindred drugs.

There seems to be a tendency to use drugs in combination, some useful formulas being appended. At this time we would suggest that

members give favorite formulas to your new committee during the year that, at next session, the committee may publish same for the benefit of the profession.

R		R	
Alcohol.....	5 i	To Aconite,	
Oil Peppermint,		To Belladonna,	
Oil Cloves.....	gtt XV.	Chloroform.....	aa 3 i
	Dr. J. A. Waas.		Dr. Chauvet.

Applied to the gums in cases of pericementitis.

Nearly two years' experience with this remedy
Kreasoform. in dentistry leads your committee to call attention to it again this year.

Of itself, it is especially useful, as stated in our last report, for those cavities in children's teeth where other drugs would be retained with difficulty, its sticky nature holding it in place, and its being insoluble in the fluids of the mouth being a desirable feature.

As a vehicle for other drugs, it is also useful. It can be mixed up on a slab with any desired percentage of cocaine, eucaïne or chloretone, and the mixture will be a very satisfactory dressing.

A very useful nerve paste can be made with kreasoform, arsenic and zinc oxide. A little experience with the spatula will enable an operator to make up these preparations, that once used we believe will find a lasting place in our materia medica.

Iodine. Elsberg's Tincture.

A new tincture of iodine, which we think will prove to be of more than passing interest, is introduced by Prof. Elsberg in the *Philadelphia Medical Journal*, November 4, 1899. This new tincture is very much stronger than the official seven per cent, it containing twenty per cent iodine. Iodine being soluble only up to ten per cent in alcohol, ether is utilized. It evaporates so rapidly that it does not spread over the part where it is applied, and one application in most cases is as beneficial as four applications of the official tincture.

Formula R

Iodine 20.0
 Alcoholis,
 Etheris..... áá 40.00

This tincture can, of course, be substituted for the official and used with tincture of aconite root.

Prof. Elsberg states that he has never seen a case of iodine poisoning from its use, and in only one case did he succeed in obtaining well-marked reaction from the urine.

From the reports at medical society meetings and in the *Medical Press*, it would seem that in the Elsberg tincture, we have a valuable topical remedy that will produce therapeutic results not obtained with the officinal tincture.

Osmic Acid.

Dr. M. H. Bennett, in a paper published in the *Lancet* (London), November 4, 1899, describes his use of this acid for facial neuralgia. This involves exposing the nerve at the supraorbital, infraorbital or mental foramen, about one-half inch, and injecting a 1.5 per cent solution of the acid directly into the nerve fiber with a sterilized hypodermic syringe. The quantity injected from five to ten minutes is introduced in two or three injections so as to distribute it as thoroughly as possible.

While this treatment is reported to relieve desperate cases of neuralgia that have failed to obtain relief from other treatment, it is hardly probable that the ordinary dental practitioner will be called upon to perform this operation, and reference is made to details in the *Lancet* of the above date, as well as the *Therapeutic Gazette* of March 10, 1900.

Dr. F. E. Stewart, of Merck Co., reports to your committee for dental medicine, thiocol, a new form of guaiacol, soluble and tasteless; euquinine, a tasteless form of quinine; iodoform and bromoform, new forms of iodine and bromine, and indicated where long-continued use of these drugs is desired; and ichthyol, which is highly recommended for odontologia.

The year has its lesson in that the dental profession must familiarize itself with the physiological action of the many drugs that we are obliged to add to our materia medica as the years go by, so that we can intelligently confer with the family physicians of our patients, and let them know what we deem most indicated from our diagnosis of dental troubles that require treatment systematically, when a case is likely to pass beyond the line of our specialty.

WM. H. MITCHELL, Chairman.

Report of Clinic Committee.

Dr. W. V. B. Ames, of Chicago, gave a clinic on some of the possibilities of the new process oxyphosphate of copper.

Dr. F. L. Fosheim, of New York, demonstrated his method of combining oxyphosphate of zinc cement with gold and amalgam.

Dr. W. A. Capon, of Philadelphia, demonstrated his system of porcelain suction anchorage by means of platinum wire. He also demon-

strated the many advantages of the porcelain jacket crown, and explained the making of his own special bicuspid crown.

Dr. George Evans, of New York, demonstrated a method of facing and lining gold and platinum crowns with porcelain.

Dr. W. L. Mason, of Red Bank, N. J., demonstrated the use of all porcelain bicuspid and molars for crown and bridge work, making it possible to prevent the showing of gold after bridge has been set.

Dr. Robert H. Nones, of Philadelphia, gave a clinic on tin shell models and a new method of swaging metal plates.

Dr. William H. Mitchell, of Bayonne, N. J., demonstrated the making of a dental preparation for pulp capping and root filling, and also exhibited a new dry battery.

Dr. John I. Hart of New York, Dr. Joseph Head of Philadelphia, together with Dr. F. C. Barlow of Jersey City, and Dr. Cephas Whitney of Kingston, Jamaica; Dr. F. Lee Hollister of Wilkes-Barre, Pa., and Dr. F. A. Coney of Doylestown, Pa., were also expected to be present and favor us with clinics, but I am very sorry to state that it was impossible for the above-named gentlemen to be present.

F. L. HINDLE.

Description of Clinics.

Dr. W. A. Capon demonstrated his system of
Dr. W. A. Capon, porcelain inlay anchorage by means of platinum
Philadelphia, Pa. wire. The size of the wire used was No. 24, and is bent into loop or staple form and fitted to bottom of cavity; then burnish platinum foil .001 into cavity and place wire in position, and while there attach by means of stiff porcelain paste; dry by bibulous paper and draw from position and fuse in furnace, thus insuring correct attachment of wire to matrix without soldering, therefore giving a purer surface for porcelain adhesion, also rapidity and correct position without investment.

He also demonstrated the many advantages of the porcelain jacket crown, and explained the making of his own special bicuspid crown.

Dr. F. L. Fosheim demonstrated his method of
Dr. F. L. Fosheim, combining oxyphosphate of zinc cement with gold
New York. and amalgam, inserting an approximate contour gold filling in the left superior cuspid, which was very sensitive, and no undercuts could be secured, except a concavity on the cervical margin. An amalgam filling was inserted on the buccal sur-

face of the left inferior twelfth year molar. The same conditions existed here as in the cuspid. The point to be demonstrated was the ability of adhesive cement to retain the metal in cases where proper retaining grooves cannot be secured.

Dr. W. H. Mitchell demonstrated the making
Dr. W. H. Mitchell, up of dental preparations, using kreasoform in com-
Bayonne, N. J. bination with iodoform and zinc oxide as a pulp
capping or root filling, with cocaine as an obtundent,
or with arsenic as a nerve paste.

The formula of kreasoform was published in the proceedings of 1899 after nearly two years' experience in its use. As a dressing in the saucer shaped cavities in the teeth of small children, it retains its place on account of its sticky nature being insoluble in the fluids of the mouth without flow out of the cavity.

To clean spatulas used for mixing, warm them.

Dr. Mitchell also exhibited a new dry battery, made for him by a local electrician, that has a longer life and is stronger than those usually sold.

Dr. George Evans explained his method of in-
Dr. George Evans, laying the labial faces of gold and platinum seam-
New York. less crowns with low and high fusing porcelains. The
interior of the crown, by the method presented, is
lined with the porcelain in accordance with the form of the tooth crowned,
which leaves only a minimum space for cement.

This is accomplished by adjusting the crown partly filled with the porcelain body in a putty like condition in the mouth, and pressing the crown in position. The crown is then removed and baked. In baking, the porcelain unites just enough to insure an easy adjustment of the crown on the tooth. Successive applications of the porcelain are made to the labial face sufficient to give the desired effect.

To correct the shadow of the platinum through the edges of the inlay, he suggests the use of chloride of gold to color the platinum. The chloride of gold is applied with a brush and the crown heated to bright red heat to fuse the gold.

Dr. Evans entirely removes the labial face of the metal crown toward the occlusal surface, and thins and perforates the rest except at the extreme cervical edge, to anchor and secure the porcelain. He also presses the thin portion of the platinum against the natural tooth to gain all possible space for the porcelain. Anchorage and strength is thus positively insured.

One of the most interesting exhibits at the recent meeting of the New

Jersey State Dental Society was the work of T. Takashima, M.D., D.D.S., a native of Japan, now practising in Baltimore. The specimens were those made by him while a student in the University of Maryland, and show the native talent of the Japanese and their adaptability to the field of prosthodontia. The base of a skull carved from a solid block of plaster was a most beautiful and accurate reproduction of the original, two porcelain faced crowns being set in the superior maxilla. Also a lower maxilla of plaster the teeth of which articulated with a bridge above. The work upon the latter was perfect in every detail. A full gold denture and several rubber plates made up an exhibit that would be hard to equal.

WM. L. FISH.

On motion a vote of thanks was extended to Dr. Eugene Underhill, of Philadelphia, and Dr. Thomas C. Stellwagen, Jr., of Philadelphia, for their kindness in preparing and reading their respective papers at this convention.

On motion the society adjourned sine die.

Second District Dental Society.

October Meeting.

A regular meeting of the Second District Dental Society of the State of New York was held on Monday evening, October 8th, 1900, at the residence of Dr. H. P. Gould, No. 193 Joralemon street, Brooklyn, N. Y. The meeting was called to order by the President, Dr. W. J. Turner. The Secretary, Dr. Hillyer, read the minutes of the last meeting, which were approved.

The President then read the annual address.

The Secretary read the list of committees appointed at the last meeting.

Dr. Alphonso Irwin, of Camden, N. J., then read the paper of the evening, entitled: "The C. D. I. of Paris, 1900."

Discussion of Dr. Irwin's Paper.

I am sorry we have not more gentlemen present tonight who were in Paris, to participate in the discussion. Dr. W. W. Walker promised to be here, but we received a telegram saying he is away from home on very important business. Dr. V. H. Jackson sent a letter this morning stating that he hoped to be present, but tonight there is a telegram stating that he

The President.

could not come, probably on account of the rain. There are not many from this part of the country who were in Paris, but those who were there, we would be glad to hear from. One of our own members, Dr. Keppy, was there, and we would be pleased to hear from him.

Dr. Keppy. To speak after the essayist of the evening, is, of course, a task. When Dr. Turner asked me to say something about the International Congress, it occurred to me that the members of the Society might be interested in the official paper published at the time of the Congress. Each morning this paper came out and the doings of the day appeared in it, so it was not difficult to know just where each clinic was to be held, what papers were to be read, and where and who was to read them. It also contained the addresses of the various members who were in Paris, and a list of the official delegates from the various societies. Besides that, on the day following the time the papers were read, the papers appeared in the language in which they were read. I brought them with me, and if you can translate them, you are welcome to read them.

Interesting Clinics Described. At the clinics I saw many things that interested me. Dr. Harlan had a method of digesting the pulp. He would expose the pulp and then apply to it a preparation of pepine, glycerine and a weak solution of hydrochloric acid and let it eat up or digest the pulp. I saw also the implantation of porcelain teeth. The socket from which a tooth had been removed was enlarged or reamed out and a silver ferrule fitted to this socket. The ferrule was removed, the bottom of the socket enlarged by a bur, and then the ferrule placed back again in the socket, fitted with warm gutta percha; then an instrument, the same size as the silver ferrule, was placed against the gutta percha and forced solidly up. That extended the silver ferrule. The operation was not painful and it looked very well. After the ferrule is in place and the top of it extended, it is very solidly in position. Then a continuous gum tooth is put in. I saw one that had been in position four years, and it looked very well. The gum tissue was good about it, and I think it is an operation that some of our skilful men might attempt. The silver is left in. The ferrule was solid at the bottom. It was not a tube; it was made in this way: it was driven through and drawn precisely the same as a cartridge shell is drawn. It was the same size from top to bottom. About midway the size of the socket was selected as the size of the ferrule. The operation was completed by the cementing of the continuous gum tooth in position. I saw several in which the ferrule was perfectly solid. There had been no disintegration of the ferrule. I should consider it a very successful opera-

ITEMS OF INTEREST

tion. The silver was used because it was considered that it is kinder to the tissue.

Dr. Meeker. That was a clinic by Dr. Paine, of New York.

Dr. Jarvie. I do not think the operation has been shown in New York.

Dr. Keppy. At the clinic was an exhibition of a silver elbow that Dr. Michaels, of Paris, one of our brother dentists, had made for a man. It was left in position so he can get the movement of his arm, although he has no elbow joint. Another thing was a demonstration of the X-ray, which to me was very useful and novel. You could see the pulp of a tooth from this demonstration. It might have been an American, too, who gave that clinic. We were taken into a room, a few at a time, and you could see right under the root of a tooth and see distinctly what was supposed to be the pulp of the tooth. It was a dark room.

Another method that to me was new, was the use of formaldehyde, essence of geranium and alcohol as a root-filling material. It was used in this way: The pulp was thoroughly removed, and a piece of cotton put into the root, and then wet with the formaldehyde, essence of geranium and alcohol. The clinician says he has done it for some years, and never had occasion to remove one of the dressings. He packs the cotton in solid and leaves it there. That is his method of treating roots. He packs the cotton in dry first, and then wets it with this solution. He fills the canals solidly with the cotton.

Dr. Brewster. Do you know the proportion of those ingredients?

Dr Keppy. I think it is 40 grammes essence of geranium, 20 grammes of 40 per cent solution of formaldehyde, and 20 grammes of an 80 per cent solution of alcohol.

Another thing I wanted to speak about was the system of delegates, and the criticism with which the Americans were met in Paris. The Committee of Arrangements invited all of the societies that they could learn of in America, to take part in the International Dental Congress. Two weeks before the convening of the Congress but fifteen Americans had become adherents of this International Dental Congress. It was proposed by the American Dental Society of Europe that a headquarters for the American dentists of the United States be established. They endeavored in many ways to get in communication, and wrote letters to various men whom they knew were connected with the Committee of Arrangements here, but received no reply. A room was engaged, and they had great plans for the entertainment of the American dentists when they arrived;

but they did not know how many would come—few or many. They told me it was a great disappointment to them that more of the Americans did not seem to take part early in this International Congress. Of the committee of thirty-two appointed by the National Society, but five became adherents before the convening of the Congress. According to this pamphlet, which I pass around, eighteen were members of the society proper. The reason I speak of it is this: This Society was invited to take part in the International Dental Congress of Paris, and they left their right to participate in the Dental Congress to the National Dental Association, which was going to send a large and representative delegation to Paris. I speak of it because the advantage of going to Paris as a delegate was very great. If you were a delegate from this Society, you received a little purple ribbon, and that was an "entrée" to the various little things to which the ordinary adherent to the Congress was not expected or invited. There were many other things that I noticed and saw there, that would be of interest, but I think I have occupied enough of your time.

Dr. Hill.

Then it was a mistake for us to delegate our power elsewhere?

Dr. Keppy.

In my opinion it was a mistake for the Second District Dental Society to have delegated its power elsewhere. It was certainly not in accordance with the ideas of the committees in charge of the International Dental Congress that one society of this country should assume to send all the men there. They expected that the various societies throughout this country would send a large and representative lot of men, and it is evident to me that that was their intention. There was a large number of Americans there; nearly everybody you would see at a large dental meeting in this country was there. Lots of men whom I knew by face but not by name were there, but not as delegates. The delegates to the International Congress were but four, and the adherents to the Congress were but eighteen at the time this pamphlet was published, so I do not think the American dentists need complain of their treatment in Paris, because the French did not know we were coming.

Dr. Hill.

Then it resolved itself into this: that it was the neglect of the National Association.

Dr. Keppy.

I do not know anything about whose fault it was. I went there, thinking I was as good as anybody that was going, and if I had not known certain people, I would not have been as good as certain other people—I might have been as good, but I would not have been recognized unless someone vouched for me. Someone wanted to attend the dinner given by the

American Dental Society of Europe. He was told that if he would get certain men to vouch for him, that he could go. I was told when I made the same application, that that was a private affair. I therefore went and saw someone else, and was told to come because I had been specially invited by the President of that society.

I would like to make some little explanation in regard to what Dr. Keppy said. This resumé of how the International Dental Congress was conducted, and something of the papers and of the clinics, was not only interesting in itself, but was told in a very happy manner. As far as this delegate business is concerned, I think instead of a neglect it has been a misunderstanding. It certainly was understood by the Executive Committee of the National Association that everyone going to that Congress had to be endorsed by the Secretary and President of that body. They were supposed to have gone as a delegate at large, representing the dentists of the United States, and going through the National Dental Association. That so very few dentists of this country gave their adherence to the Congress (which means they sent their application and paid their \$5) until a few days before the Congress opened, seems unfortunate, and was very negligent; for they ought to have known about membership in the Congress, as this matter was in all the dental journals for months before the Congress took place. Great efforts were made to circulate all the information possible, with regard to what was required to be a member of the Congress.

I was interested in one thing the essayist said tonight in regard to Dr. Godon's speech—the gentleman who made the opening address—in giving the dentists so high a place—guardians of the health of the community. Just before coming to the meeting this evening, I glanced over the *Cosmopolitan* for October, and saw there an article written by Dr. Devoe, on the care of the teeth. There were four or five pages devoted entirely to the part that the physician played in regard to the health of the patient through care of the teeth. The last paragraph said: "But the dentist needs to be taken into consideration," and the thought in that last paragraph was that the dentist was really very useful (although that was not the term employed); that he removed the tartar from the teeth, and after doing it once, it was necessary to be done occasionally afterward, and by occasionally filling the teeth and attending to them, the teeth became not unpleasant inhabitants of the mouth! That was about all the dentist had to do with it, but the physician had almost everything to do with the care of the teeth.

And this article received a prize of \$250!

I am in a peculiar position as I am to speak on this same subject before my own Society, and I felt that I should not say a word; but in regard to what Dr. Keppy has said, it makes me feel that in the interest of the dental societies, I should express myself. I fully endorse what Dr. Keppy said. As to what Dr. Jarvie said, I do not believe it was done through negligence. I believe it was a wrong principle for any dental society to delegate its power to the National Association. I felt that myself, and I carried it out in being a delegate from the National Association of Dental Examiners, and also a delegate from my own society. I had a pride in my own state, and I had a pride in the National Association. I had no feeling against the treatment I received. I received the best treatment, and so did Dr. Irwin. But there were men's names down, some from Connecticut and from some of the Western and Middle States, who were not in Paris. Their names were down, and they were sailing under false colors. That was through the National Association. I may be wrong, but I believe that every local society should have pride enough not to delegate its power of representation in any congress or any other convention, to the National Society. Let them keep it to themselves. I feel constrained to say that. I know our names were not down there. We were there and participated in all the meetings, and I want to bear Dr. Keppy out in that.

I do not wish it to be inferred that I was not well received and did not enjoy myself, or was not properly entertained by the French people, or the French committee. I certainly was, but I am certain there were many dentists of this country who attended the Congress, who were thoroughly disgusted. They could not find out anything about it, and they did not know where to go to get what they wanted, because they did not know certain people; they were much displeased, and came away with a very wrong idea of that Congress.

Dr. Keppy's name appeared as a delegate, and Dr. Jarvie. Dr. Meeker's did not. Dr. Keppy's name went in in the regular manner, endorsed by the President and Secretary of the National Dental Association, and Dr. Meeker's did not. This Society did not delegate its power.

When I got to Paris, I was told that I was not a delegate. My name appears as a delegate from the Odontological Society of New York. It does not appear as anything but an adherent. My receipt from Paris shows that the Secretary had received 25 francs, and I am sure I went there with the best intention. Dr. Jarvie thought I went there as a delegate,

and I am sure what he said was certainly sincere, but he is in error when he states that anyone whose name was officially recognized and would be sent on to Paris as an adherent, would receive a purple ribbon when he got to Paris. He did not; he was merely received as an attaché of the Congress.

Dr. Jarvie. Dr. Keppy is not quite right. The authorities sent a large number of blanks, the only ones that were sent to this country to be filled and endorsed by the proper authorities here, and then sent on to Paris. Those that joined this International Dental Congress through that source, were the only regular recognized adherents to that Congress. There are some names that appear showing that errors crept in, men who never intended to go. There were no attachés or anything else. Because persons' names appeared, or did not appear, in that list, it does not make the fact. My name appeared, and my not being there myself did not make it so. I intended to go, but sickness prevented me.

Dr. Keppy. You were one of the eighteen Americans who are mentioned here. You were an adherent. In this book you are a delegate from the New York Odontological Society and an adherent among these eighteen.

Dr. Jarvie. I was no delegate from the Odontological Society.

Dr. Meeker. I think Dr. Keppy is right in that. I was a delegate. Dr. Dowley, of Boston, and myself, were delegates from the National Association of Examiners and from the New Jersey State Society. I was really a double delegate. I received the cards and tickets and all the emoluments and invitations and dinners. Whether Dr. Keppy received all that, I do not know.

Dr. Keppy. I was not a delegate when I arrived, but I was made a delegate when I got there.

Dr. Hill. I spoke of this originally, because when this matter came up before this Society, we hesitated to take any move whatever, with the understanding that the National Association would take care of the whole thing. That is why I wanted the matter probed.

Dr. Keppy. The only reason I speak of it is that we will at some future time have another International Congress, and the Second District Society should be represented.

The President. We would be pleased to have Dr. Irwin close the discussion.

Dr. Irwin. I have only a few words to say, other than thanking you, and that is in regard to the clinics.

I saw the clinics spoken of by Dr. Keppy, and I had a number of them incorporated in my paper, but I found the paper assumed such proportions that I got frightened. So I excluded all but the most crowded foreign clinics. You can see the American clinics anywhere and anytime. If it had not been for the American clinics, the clinics at the third International Dental Congress would have been failures.

The Secretary moved a vote of thanks to Dr. Irwin for his paper.
Motion carried.

Central Dental Association of Northern New Jersey.

October Meeting.

Discussion of Dr. Chase's Paper.

Dr. R. M. Sanger. There seems to be a lack of desire to discuss this admirable paper. I rise because I think the subject is one which ought to interest us all, although the essayist has not made any special conclusions. He has left the paper open for us to take for what it is worth, or for what we individually believe. The question of ethical advertising is one of so many sides that each one is apt to think of it only from his individual viewpoint. No society has ever gainsaid the right of any honest, honorable man to advertise as his conscience would dictate, knowing full well that if he is honest and honorable he will advertise in a proper manner. There is, I think, no code of ethics which would discipline any man for that kind of advertising, and as there is no member of this society who would advertise in any other way, it hardly seems necessary to discuss the other side of the question. Men in this city have been called to order because, inadvertently, they have been made to appear to advertise in a manner which was not considered to be ethical, which fact only bears out the statement I have just made, that they would not have done it intentionally. The essayist called attention to the clever gratuitous advertising of Mr. Barnum, and we have known men in the dental profession who were equally clever. Whether they come under the code of ethics is a question which I am not able to decide.

Dr. Palmer. I feel very much as Dr. Sanger does, there was not enough in the paper in the way of pointed conclusion, for us to discuss, as being opposed to him.

I have always been known as a member of the New Jersey societies, as well as of the New York societies to which I now belong, as being in favor of most of the articles set forth in our code of ethics. At the same time I think oftentimes the lines have been drawn much tighter than the circumstances warranted. I heard a gentleman whom I respect very highly, once remark, upon being asked a question in regard to what should be the code of ethics in a certain society, that he thought the Golden Rule was as good as anything they could set forth. It has seemed to me on occasions that the way in which our code of ethics has been construed has perhaps worked injustice to good and worthy members of our profession by having the lines drawn as strictly as we have at times drawn them, and many members of the dental profession who would have been bright lights, and whose opinions in our meetings would have been of much value, have been prevented from becoming members for this reason. There has often been a question in my mind whether it would not be wise to modify the rules to some extent.

In my humble judgment a code of ethics is of but little use; there is but one effective code of ethics and that is a man's conscience. A man's conscience dictates to him the right course and he will live up to no code of ethics that has ever been written if he is not controlled by that. The code of ethics will not prevent him from doing the wrong thing. If a man is honest he will be honest at all times. If dishonest he will be dishonest in spite of all the codes of ethics that could be written. It is only what is honest in a man that makes him what he is.

I certainly agree with Dr. Osmun that it is entirely what is within a man that settles the question of ethics one way or the other, and it is due to that that our rules of ethics are necessary, because some men have a good deal in them that is right and others have a good deal of wrong, and it is for the wrong fellows that we adopt our rules of ethics. I do not know that anything more definite can be established than the laws we have on our books; they are as plain and simple as rules can be made. The rule of ethics lays down exactly what a man may do, and lays down much more clearly what he may not do; that he may not advertise in the public prints, cards, etc., calling attention to his prices, and it also says he may advertise by inserting his name in the public prints, and by cards giving his name and address and office hours. There is no law

that human intelligence has ever been able to frame that will prevent any man of aggressive nature and a desire to advance his own interest, from quietly using whatever influence he may have, to have inserted in the public prints certain articles regarding wonderful operations that have been performed upon the unfortunate Mrs. Jones, who was run over by a trolley car and all broken up, and telling how he put her together again. You cannot stop that. Modesty is supposed to be one of the virtues of all professions, and modesty is characteristic I think of most of the members of our society. There are a few gentlemen who, perhaps, are not as modest as others; there are others who are more modest. You can take your choice, and have all the laws you choose. But you can catch the fellow who puts his advertisement in the newspapers and proposes to put in sets of teeth for \$2 and upwards, the best that money can buy, and all that sort of business. You can catch him and keep him out of your society, but you do not do any good by keeping him out; you can do a good deal more good by bringing him in and making him conform to the rules. There are a whole lot of gentlemen in this state who are not members of either this or the State Society, who would give all their old boots, and all the spare cash they have if they could be made members of either one of these societies. They long for the fellowship, long for the connections which it would give them, but dare not propose their names because they know when they come up they will be blackballed, because they advertise, and because they do cheap work. I remember when I was a member of the executive committee of the New Jersey State Society having several men brought before us for advertising, and the only question that the board had to decide upon was whether they advertised their superiority, excellence of performance of their professional work, or something of that kind. The question of prices did not enter into it and they were told that the question of prices had nothing whatever to do with their being brought before the board; they could work for nothing if they chose, and there would be no question raised against them. And I think that is the sentiment that pervaded the whole society, but it was simply the question of bringing one's self into superior notice, into prominence, as it were, before the world, and impressing the public with the idea that Dr. Jones was the only dentist in the world, and all the rest were old fogies.

The paper I was very much interested in, and
Dr. R. G. Brewster. also the discussion that has followed it. I think, as far as any opinion I have in the matter, that every society has a right to establish its own rules and regulations, and if it establishes certain codes of ethics, it is right that the members should live up to it. That goes without saying. Any rules which you choose to

make will not make a man honest. Rules are not made for those who are honest, but for those who are likely to break rules and bring themselves into prominence in that way.

A young man who establishes himself in a community ought to have the right to bring himself before the public, and I for one think he should have that privilege, and as Dr. Luckey has said, the bars should be let down to let some of these men in who are very good men, and change their views later on.

I did not come here tonight for the purpose of discussing this paper. I was not coming, in fact, until I saw the evening paper and saw that Dr. Meeker was going to have a great big smile on his face, and some other people were going to have a frown, and I thought I would come down to see how they looked. But referring to the paper, I was glad to hear Dr. Chase's paper, and it is one of those things that is very hard to discuss. The doctor, as has been said before, did not come to conclusions, consequently there is nothing with which to take issue. There was one point which struck me, as he was reading his paper, one statement he made, and that was that no honest man would advertise. I simply wish to take issue with that particular statement; I think he made a mistake there; I do not think he intended to say that; it might be that a man would be ever so honest, but his ideas may be different from others.

I believe in ethics, but I do not believe in codes; Dr. R. Ottolengui. I said that ten or fifteen years ago and have not changed my mind. It always seems to me that a codified law is a degradation to the profession. It is an admission to the rest of the world that dentists would not know how to behave themselves unless it were put down in black and white. If I had my way about it the ethics of the society would be very much in line with what one of the other members said, "The Golden Rule," or as I have seen in some of the societies in the South, "All members of this society shall be gentlemen."

Dr. B. F. Luckey. Or, "shot on sight."

Dr. Luckey says "shot on sight." I don't believe a real gentleman has ever been "shot on sight." Dr. Ottolengui. Dr. Luckey suggests we ought to bring some of these people who ought to be shot into the society and then kill them. Now Dr. Luckey is right in his remarks in regard to our barriers. I think they are too intolerant to people who have started in life by advertising and then regretted it afterwards. Of course in opposition to that there is

the argument that if you do not have that rule, men will begin to advertise, hoping to get in later. But there is no rule that fits all cases, and I know personally of one case where a man went down to his death in great disappointment because he could not join a dental society. Before he died he had left the avenue, and given up his advertising, and gone on a side street, and was keeping the cream of his practice. You will be astonished to know how much cream gets into the offices on the avenue. Well, that man, to my knowledge, became a constant attendant at dental meetings and was an operator at many of the clinics held at S. S. White's, as you remember, but he was not eligible to join a society. There were very few better dentists in New York in the matter of filling teeth. And as far as honesty is concerned, he was as honest as any man I have been acquainted with, and as far as intelligence is concerned, he was a wonderfully well educated man. But he did not, at the beginning of his career, feel it necessary to starve to death while building up a business, and he went in for advertising and building up a big business. Nevertheless in the end he was sorry for all these things and would have liked to be a member of the dental society, and if he had been a member of the society he would have been a better dentist and a better member of the community, but he could not get in. As the poor man afterwards committed suicide, it was possible he was not so much to blame for his advertising habits as we may have supposed. I would say, perhaps we ought to add charity to our dental code.

I am sorry I was not called on immediately after

Dr. Frank C. Hindle. Dr. Osmun, because I expected it after his remark.

But I think we have had a great deal of discussion on this paper that was unnecessary. I don't think it will make any changes in our views. I was a little in doubt by Dr. Ottolengui's remark on the Golden Rule, for I was not sure whether he meant we should do to others as we would have them do to us, or, that we should do others as they do us. I do not know how it is in large cities like Newark and the representatives we have from New York and Brooklyn, but in small towns it is a good thing to have an advertising man; it is a good place to shift work to. But I will say this, he who speaks well of his fellow practitioner receives the greatest advertisement that one can have.

I am in just the position of the sentiments

Dr. Oscar Adelberg. advanced by some gentleman preceding me. I

think it is a very bad idea at this day to try to lower the code of ethics and to give the younger men an idea that in the future they have a chance of membership in a dental society even if they have advertised. I think it is wrong to advance any such sentiments as have been advanced here tonight. I wish to go further. I wish to say that

the paper which our brother read to us, while it did not reach any conclusions, did not go half far enough, and did not touch the vital point for which it was really intended to be read and which we expected. Now advertising we all know is resorted to by men in the profession that we have very little respect for. But there is a mode of advertising which is more reprehensible than the men who are known and who come out and advertise openly and above board. The men who manage to get their names in for the reporters who attend the meetings, and have their remarks put down and published in the paper the next day. Now I think that is one of the reprehensible things that this society is guilty of. I don't know that I ever attended a meeting in New York of the old societies where any reporters were present except the stenographer of the society. Now this Central Dental Association is in the habit of having two or three reporters present at each of our meetings. What for? To report the proceedings of the society to the journals? No.

A Member.

For the good of the public.

Dr. Adelberg. For the good of the public? No, sir. I beg to differ with you. It is for the sake of puffing and advertising of the society. I wish to be called to order if I am not in order. Now I wish right here, for the sake of the society, for the sake of the code of ethics, for the sake of the good name of the society, in standing with other societies, to make a motion that hereafter none but the society's stenographer be authorized to attend these meetings and all press reporters be done away with.

Dr. Watkins. It is 'getting interesting. The society is charged with doing things reprehensible. The doctor has mentioned one of the reprehensible things which the society does, perhaps he will mention the others, and then we can take action on all of them at the same time.

The President. Are there any other remarks on the paper? If not I will call upon Dr. Chase to close the discussion.

Dr. Adelberg. Will you allow me, I wish to make that motion?

The President. It is not in order now.

It is a comparatively unusual matter to run one's head into a hornet's nest, but apparently there are some kinds of hornets in this world of ours whose stings are stimulating. What better exercise can there be than to stir up the dental hornets of New Jersey. It was not my intention when I offered this paper, to offer any solution to the question which it brings forth. I read it for the purpose of creating, if possible, an argument on this question. As one of the gentlemen said, the probabilities are that

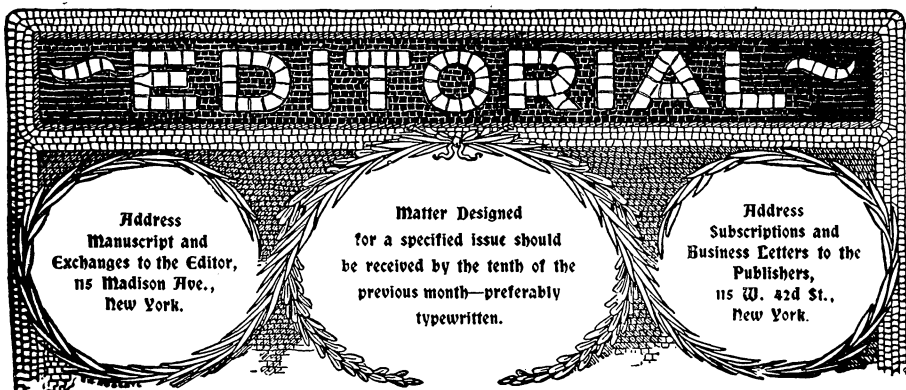
these papers are brought here and proceedings are gotten up here for the purpose of getting men to come here and report in the newspapers. I tell you gentlemen I did not expect or did not know a newspaper reporter was going to be in the building, and I do not need the advertising. In the second place one gentleman said he thought I made a mistake in saying no honest man would advertise. He did not hear all the sentence. I said, "It is presumed that man as a reasonable being must seek his own highest good in this present life, and, therefore, that any laws he has to obey, must be demonstrated to be means to the attainment of this good." I did not say that an honest man would not advertise, for I do not believe there is a gentleman in this room who does not, in some manner, shape or form, or who did not in some manner, shape or form, whatever it was, at some time in his life, advertise, or make known, by advertising means, publishing, and letting people know he was in business for the sake of getting something to do and making a livelihood for himself. There is many a man who starts out in life, when he gets his diploma from the college he has spent all his money in getting an education. He has got to get work. He can advertise and still be ethical, irrespective of your code of ethics, ethical being honest, and meaning honesty. No code of ethics ever made a man honest, and that is where my paper really tended. I did not purpose, and did not expect to answer these questions. I do not believe there is a man in this building, or this city that can answer them. The question comes, how shall a young man gain a livelihood; he has spent his time in going through college; after getting his academic education, he probably takes up the profession of dentistry, goes to a dental institution, graduates, and when he receives his diploma the probabilities are his pockets are empty and he has nothing but his good name, and probably a little credit on which to get a few instruments together and pay the rent of his office for a month. He must have patients, how is he going to get them? He must, in some way, manner, shape or form, let people know he is there to practice. He can do that in a great many ways that are not opposed to the code of ethics. It is not wrong for him to send out his cards to his friends to let them know he is there for their good. He goes into an office probably with some other gentleman and is in with him awhile and gets a little money and starts out for himself. He must, as I said before, gain a livelihood, and it is to the good of this society, or any other society, that they should help such a young man. There is no man right, no man who has never done something which was wrong in his life. As has been said in Holy Writ, Let him among you who is without sin cast the first stone.

“Echoes from Paris.”

I appear before you this evening in a very unusual predicament, something which never happened before. The paper which I wrote in September for this meeting I could not find this evening, so I will have to tell you extemporaneously what I saw in Paris. If you will bear with me in that I will be pleased to continue. I was appointed by the State society, and also appointed by the National society as a delegate, which I considered a great honor, notwithstanding I had the temerity to accept the position of secretary and treasurer once more. My ticket entitled me to visit the exposition at all times. As it was No. 1286 you will have some idea of the number of delegates present. The method of management I noticed in the *Cosmos* is given the greatest of praise. Well, I take my standard from the New Jersey State Dental Society, and it is pretty high on dental society management. I don't say this in disparagement of the French nation, where there was over 1,400 men present from all parts of the world, but I feel that the management could have been, on the whole, better in every way. The clinics were held at 45 *Rue Tour de la Auvergne* and the papers were read in the Hall of Savants *Rue Serpente*, about two miles apart. Now you picked out what you wanted to find in the morning from the catalogue and you would say, “Well, I would like to see that clinic.” You would look a little further on and you would see that some paper was to be read in the English speaking section and you would like to hear the paper read, too; but you could not do it, so you had to choose one or the other. So naturally I chose the clinics, as they could not be translated on paper. A clinic is an object lesson, and that is what I want. I have always contended in the state society you can have all the scientific papers you wish, but it is a clinic people will come from far and near to see, if it is something new. So I attended the clinics. I did some work; I obtained eight Americans to go to the Hall of Savants to hear a paper by Dr. John F. Powsley, of Boston, on Dental Education, as that was what I was interested in. And before I went I promised Dr. Dowsley that I would obtain all the American gentlemen I could to come and discuss that paper, so that when it was published it would receive a good notice in the English translation. Dr. Dowsley read his paper. There was a president, four vice-presidents, two secretaries, three interpreters, and three other gentlemen. I never could find out what they had to do with the meeting, but they were there nevertheless; they were all strung along the table in a semi-circle.

When Dr. Dowsley got through reading his paper we were all on the *qui vive* to get up and speak out little speeches on the paper. The president said something, and some one in the audience said something in French and the first vice-president said something and the second vice-president said something and the third vice-president said something, and the secretary also and the interpreters, and two in the audience got going, and they had a regular row there it seemed to me. Well, suddenly it all stopped and another man got up and read a paper in French, so Dr. Dowsley was dismissed, and we had no show whatever. So I went out, and Dr. Irwin, and three or four of the American gentlemen who were there, went also.

The finest clinic that I saw was done by an American. His name was Payne, of New York; he cleaned out a portion of the alveolus, inserted a little silver cap with a top to it, drove it in and put in a continuous gum tooth with gutta percha, and after it had been in some weeks the gum healed properly. He warmed the tooth and took it out and cemented it in with oxy-phosphate. This patient he had there had a tooth which he said had been in five years. He said others had been in two and three years. I asked Dr. Irwin, being on the committee for our clinics next year to take Dr. Payne's card, and I believe he has already communicated with him, endeavoring to get him to be present at our meeting in July next. The next finest clinic I saw was by Dr. Herbst. That was the finest specimens in mechanical work, appliances for gold filling, and his little appliances for artificial work. Another thing that they had, which I think New Jersey might copy, was a bar alongside where the clinics were; and they had very pretty girls there, I tell you, lady attendants, and they were pretty, and you could buy a bottle of champagne for three francs, that is sixty cents. There is one point I think ought to be copied in this country, and that is the only point that I believe our chairman of our clinic committee should adopt. Where the clinics were given the place was railed off in shape, as Dr. Irwin says, like a coffin, and alongside of it benches were made that rose step by step like the hall in the colleges, so that the dentists could be on those steps, one above the other, and the dentist that had his work before him in the chair had his table there and no one could interfere with his elbow or get right over the patient, and all had a pretty good chance to see. And another point that I liked in this arrangement was that they all had antiseptic tables of glass, two shelves of glass, made of iron piping and glass tops and glass bottoms. That was a very good arrangement I thought. I don't know as there was any other point that I saw in that clinic room that was of advantage to our State Dental Society.



The End of the Nineteenth Century.

With this month ends the nineteenth century. During these last one hundred years, it is claimed that the progress in the world has been equal to all the strides of science and art in all the preceding centuries. In our own specialty, unquestionably, the advancement has been marvelous. From the avocation of the apothecary and the barber, dentistry has grown to be one of the recognized learned professions with a vast literature and school system, all of its own.

Not only has the profession of dentistry been created during this period, but we may justly claim to have brought into existence one of the most important branches of our mother profession of medicine. Without anesthesia, the surgery of today could never have existed, and to dentistry belongs the proud distinction of having given this boon to suffering humanity.

Horace Wells discovered the anesthetic properties of nitrous oxide, and, as a test, courageously permitted the experiment to be performed upon himself, which resulted in success. Later, William T. G. Morton found an agent in ether, which was successful in its very first application to major surgery. Both of these men were dentists, and consequently the claim of dentistry for the discovery of anesthesia is fixed upon a firm basis.

The technique of our specialty also has made wonderful advancement. Whilst very much was done for the salvation of teeth even in the last century, nothing like the scientific work of today was even dreamed of. Very small cavities were filled; larger ones which produced aching teeth, resulted in the extraction of the troublesome members.

By degrees we began to appreciate the value of the dental organs, and men have devoted earnest study and intelligent investigation to perfect means of procedure, till, at present, it is considered very rare that a tooth, any portion of which projects above the gum border, cannot, in some manner, be restored to usefulness in the arch.

An important step forward came with the use of cohesive gold, and through it, the art of restoring the contours of the teeth, so that proper contact with the neighboring organs hold all in proper rigidity. Men became very skilled in the manipulation of cohesive foil, even entire teeth having been built up from the gum margin to occluding surface prior to the advent of the all gold crown.

Amalgam, as a tooth saver, introduced to the profession by men who were looked upon as charlatans, has finally reached a point of respectability, and one of our most prominent professors has devoted months of labor in investigating its good qualities. Undoubtedly, millions of teeth have been saved by this one agent alone, which would otherwise have found their way into the waste box.

Crown and bridge work, though much abused by many, has, nevertheless, found a legitimate place in the work of the dentist, and many partial dentures can be supplied in this manner without the very objectionable plate of the old days.

Heretofore, the cry of the dentist has been, utility beyond all other considerations. More recently, the æsthetics are receiving more consideration, and we have artists in porcelain restoration, and artists in orthodontia who beautify as well as make useful.

The scientists in our profession have contributed their quota to the study of bacteriology, and the causes of decay have been almost definitely determined.

Within the century, the school system was originated and has grown to tremendous proportions, the dentist of today being a

graduate of purely dental institutions, the teachers in which are mainly from his own profession.

The record for the nineteenth century is surely one of which we may be proud. For the end of the twentieth century to show similar advance, would stagger the imagination of the practitioner of today, yet there are many unsolved problems for the young men coming into the profession to undertake, and it is to be hoped that some of these men now in college will achieve for themselves the same fame as the pioneers and scientists of the nineteenth century.

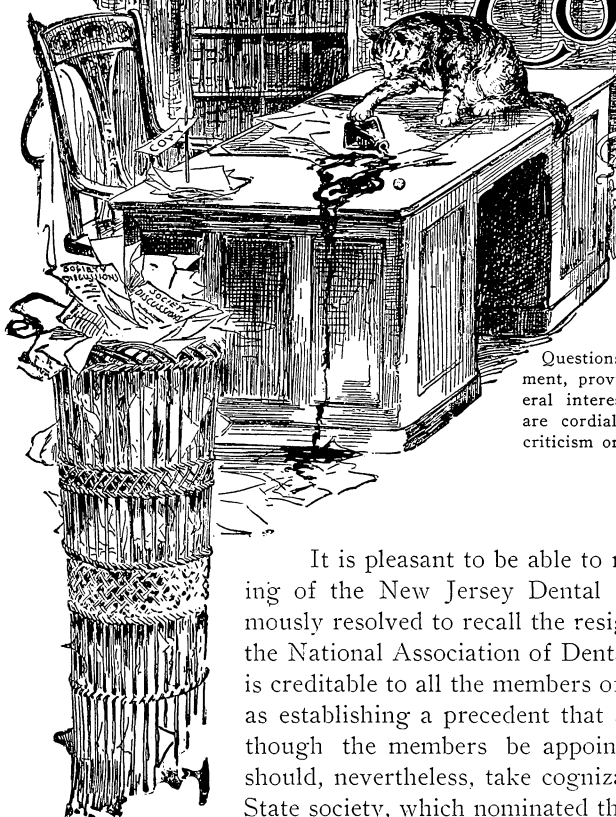
Galveston Sufferers.

Shortly after the terrible disaster in Galveston, we received letters asking our co-operation in obtaining assistance for the dentists of that city. The appeal reached us too late to be inserted in the issue current at the time, but the facts were immediately communicated to the local societies in this section, while a correspondence was begun with the dentists of Galveston who were urged to have a formal meeting and appoint a committee to whom contributions might be sent. This has taken some time, and we only now are able to announce the names of the committee which are as follows: Dr. H. W. Lubben, Chairman, Galveston; Dr. Thos. P. Williams, Houston; Dr. R. E. Koehler, Galveston. Contributions should be sent to Dr. Lubben.

A good means of raising money for this worthy cause would be to bring the matter up before the meetings of the various societies throughout the country, and to have a collection made on the spot. In this way the collections were taken in New York. The following amounts were raised and have been forwarded: First District Dental Society, \$125.00; Second District Dental Society, \$85.00; Alumni, College of New York, \$55.00.

It is to be hoped that a liberal response to this appeal will be made throughout the country.

THE EDITOR'S CORNER



*With malice
toward none,
with charity
for all*

Questions will be answered in this department, provided the answers would be of general interest. After publication our readers are cordially invited to make further reply, criticism or comment.

It is pleasant to be able to report that at the last meeting of the New Jersey Dental Commission it was unanimously resolved to recall the resignation of that Board from the National Association of Dental Examiners. This action is creditable to all the members of the Board, and is of value as establishing a precedent that all examining boards, even though the members be appointed by the State officers, should, nevertheless, take cognizance of the wishes of their State society, which nominated them in the first place.

Faculties Association Action on New Colleges.

Pursuant to the following resolution, a commission to investigate new colleges has been appointed, the chairman of which is Dr. J. Taft, Cincinnati, O. Geo. E. Hunt, Indianapolis, Ind., and Frank Holland, Atlanta, Ga., are the other members.

At the annual meeting of the National Association of Dental Faculties, held at Niagara Falls, 1899, the following action was had:

"Resolved, That a commission, consisting of three persons, be appointed, whose duty it shall be to take cognizance of, investigate and

advise with any parties contemplating the establishment of a new college or the reorganization of an old one."

In the performance of the duties of this commission it shall be competent to take into consideration the following points, viz.:

All the circumstances that attach to it; the motive that prompts such an organization; the need for it; the proposed locality; the character and ability of those who propose to conduct it; the resources that may be available for its establishment, and any other points that have a bearing, for or against the establishment of a proposed college.

The attainment of full knowledge on these points would enable the commission to advise wisely.

Any party or parties having in contemplation the organization of a new dental college, or the reorganization of one already in existence are requested to communicate with this commission for conference.

It shall be the duty of this commission to report to this body at each annual meeting, giving in detail such facts and conditions pertaining to the subject as the commission may find.

Prof. Edwin T. Darby, of the University of Pennsylvania, sends us the following communication for which we gladly find space. Dr. Darby says that the syringe is not a hypodermic syringe, but those which I have seen have been supplied with hypodermic needles as well as with the canula.

**Painless Extirpation
of
Dental Pulp.**

"In your report of my remarks (August ITEMS OF INTEREST) at the meeting of the National Dental Association, upon the subject of the painless extirpation of the pulp, you have made some errors which it may be well to correct.

In the first place, the little syringe which I recommended, is not a "hypodermic syringe" but an abscess syringe. It differs from a hypodermic in that it has no needle, but a small canula or tube. A needle would puncture the pulp, the canula does not. Again, the syringe is not made of "two glass tubes," but is a glass barrel with a glass rod which forms the piston, the same being accurately ground to the barrel, making an air-tight syringe.

I did not say that I had used it successfully "seven" times, but several times.

Possibly the operation is of sufficient importance to have it properly described, and if your readers derive as much satisfaction from it as the writer has done, the space given to it will benefit many.

In my remarks at Old Point Comfort, I intended saying that I had of late been using carbolic acid and chloroform for anesthetizing the pulp, thus enabling me to remove it at the same sitting. My method is

to open a pulp chamber as thoroughly as possible without great pain by means of sharp burs and a gentle touch, and when the pulp is exposed touch it with a crystal of carbolic acid. The carbolic acid acts as an escharotic and local anesthetic. Almost immediately thereafter I insert the little gold canula (which can be disconnected from the syringe) into the cavity of decay, and slightly into the pulp chamber. Soft temporary gutta percha is then packed about the canula. Into the barrel of the syringe is drawn about three drops each of carbolic acid and chloroform. The syringe and canula are then connected and gentle pressure made upon the piston. In one-half to one minute thereafter the canula is removed, and by means of a broach, the pulp is removed painlessly. The pulp will be found blanched like skin tissue.

The most favorable cases are single rooted teeth where the pulp canals are large and easy of access, but with a little more time molars can be treated in the same way successfully."

To True Up Dr. A. H. Hinkler, of San Francisco, Cal., recommends the following method for trueing up
Carborundum Stones. carborundum stones: "Mount stone on mandrel; place mandrel across a small mitre-shaped box about one inch wide and notched near end to receive mandrel. Bring the stone in contact with edge of medium or coarse grit stone on lathe, preferably on electric lathe. The result will astonish you. A stone nearly triangular shaped can be trued in a few seconds."

Dental Law of Dr. W. H. Whiting, of Barre, Mass., writes us
Massachusetts. as follows in regard to the discussion of the dental law in Massachusetts, as reported in the November issue of this magazine: In a discussion of Dr. Oshun's paper in November number of *ITEMS OF INTEREST*, Dr. Dawbarn makes a very erroneous statement in regard to the dental law of this State that should be corrected.

The examination before our State Board is very rigid both in theory and practice, and occupies two days. It is as rigid, if not more so, than that of any other of the States, including New York and New Jersey. Anatomy, physiology and chemistry are included in the examination. The examination is so severe that from forty to fifty per cent, including many college graduates from Baltimore, Philadelphia and other colleges, fail to pass. The Harvard Dental College devotes the whole first year to anatomy, physiology and chemistry. All are required to pass the State Board examination, graduates and non-graduates.

Dr. Hitchcock The following paragraph from an Oswego paper indicates that Dr. Hitchcock has made a present of
to the one of his beautiful horns to Vice-President elect
Governor. Roosevelt:

"Dr. Theron S. Hitchcock, the East Side dentist, who is also a carver of reputation, presented Governor Roosevelt with a fine black Texas steer horn, upon which were carved pictures of "Teddy" in the garb of the hunter, ranchman and rough rider.

The workmanship was of an exceptionally fine character, the colors of the horn, black and white, appearing in the faces and figures to the greatest possible advantage. The presentation was made at the O. & W. station just as the Governor got into his carriage. He had a brief but pleasant talk with Doctor Hitchcock, during which he thanked the doctor and said that he would add the gift to the curiosity shop he already possesses."



Henry H. Burchard, M.D., D.D.S.

At the regular meeting of the Academy of Stomatology held Tuesday evening, October 23, 1900, the Committee on Resolutions upon the death of Dr. Henry H. Burchard, submitted the following, which were accepted and adopted:

Whereas, Henry H. Burchard, M.D., D.D.S., has been removed by death from the scene of his toils and his honors, therefore be it resolved as the sense of this Society that in the death of Dr. Burchard, the Academy of Stomatology has lost one of its most brilliant and useful members and the dental profession one of its most earnest workers.

As one of its organizers he was foremost in the endeavor to establish the Academy of Stomatology upon a plane of high professional usefulness and was ever active in advancing its interest by contributing his own work and enlisting the coöperation of others. He gave unselfishly of his energies and best endeavors even when physically unfitted for the task. His active brain not only stimulated thought and discussion at the sessions of the Academy, but his suggestive help in the ordering of its affairs was always a material aid in its progress.

He was earnest and enthusiastic in his efforts to impart his knowledge to others. As a teacher he was clear, logical and forcible. These qualities he evinced both as a writer and as a speaker.

As a man Dr. Burchard was genial and affable in disposition, ever ready to sacrifice his own time and strength whenever it was within his

power to aid others and especially those who were earnestly working in the field of dental advancement. In his brief and brilliant career as writer and teacher he had attained remarkable distinction and though his untimely decease has occurred at an age when the promise of still greater achievements seemed clearly before him, he nevertheless attained an eminence in his profession as teacher, writer and investigator seldom reached by others and less frequently by those of his short period of life.

Resolved, That these resolutions be spread upon the minutes of the Academy, and that a copy be transmitted to his family and be published in the dental journals.

EDWIN T. DARBY,
S. H. GUILFORD,
EDWARD C. KIRK,
ARCHIBALD C. EGLIN, Secretary.

Manila Dental Society.

Resolutions on the Death of Dr. George H. Cushing.

The intelligence having been received by the members of the dental profession of Manila that the spirit of the venerable Dr. Geo. H. Cushing had passed away, and recognizing the great loss to the dental profession by reason of his death, and furthermore feeling that the beneficent influence of his long and useful career as a practitioner and teacher are operative in even this distant land, the members of the Manila Dental Society have come together to do honor to his memory and have adopted the following resolution:

Whereas, The Almighty in His infinite wisdom has spared the life of our friend and teacher, until, though passed the allotted life of man, he was still in possession of the strength and power of mind to be serviceable as a teacher, and

Whereas, The world is better by reason of his busy life, the dental profession richer in her store of knowledge and the hearts of his friends sorrowful in the consciousness of his departure from among them, now therefore be it

Resolved, That the members of this Society, by this action, add their tribute to his worth, express their sincere and heartfelt sympathy

to his bereaved family and to the dental profession of the United States, and that this resolution be entered on record, a copy be sent to the family of the deceased and to the dental journals for publication.

LOUIS OTTOFY,
W. G. SKIDMORE,
LLOYD R. HANLEY, Committee.

Manila, P. I., August 6, 1900.

Resolutions on the Death of Dr. Theodore Menges.

The Manila Dental Society, numbering among its members former associates and pupils of Dr. Theo. Menges, have learnt with great sorrow of his demise while yet in the prime of manhood, and at a meeting held this day have adopted the following resolution, of which a copy is ordered to be spread upon the minutes of the Society, one to be sent to his sorrowing widow, and others to the dental journals of the United States:

Whereas, Our departed friend, by his untiring energy, by his constant devotion to duty, has done more than his share for the uplifting of dental education in the United States, and

Whereas, A host of his former pupils have each and all lost not merely a teacher but a true friend, adviser and counselor, whose constant aim was the betterment of their condition, now, therefore, be it

Resolved, That in his death the dental profession has lost one whose efforts on our behalf have always been elevating, his former pupils have lost a worthy friend, his wife has been bereaved of a loving husband and constant companion, that with all of these we sympathize and mourn, keenly feeling while far away from our homes and friends that in his passing away, we, too, have lost.

LLOYD R. HANLEY,
W. G. SKIDMORE,
LOUIS OTTOFY, Committee.

Manila, P. I., August 6, 1900.



Programme of the Rochester Dental Society.

Sessions 1900-1901.

December 11, 1900, office of Dr. B. S. Hert, Prof. C. H. Ward on "The Welding Properties of Gold." Discussions headed by Dr. J. H. Beebee and Dr. L. Requa. Office Incidents headed by Dr. F. L. Sibley.

January 8, 1901, office of Dr. L. S. Goble, Dr. G. Goode on "Practical Sterilization of Instruments." Discussion headed by Dr. C. F. Howell and Dr. F. W. Proseus. Office Incidents headed by Dr. D. H. Waugh.

February 12, 1901, office of Dr. W. H. Barr, Dr. J. W. Cowan on "Pathogenic Affections of the Oral Cavity." Discussion headed by Dr. C. H. Nicholson and Dr. F. J. Woodworth. Office Incidents headed by Dr. F. J. Tarrant.

March 12, 1901, office of Dr. M. L. Hulme, Dr. R. H. Hofheinz on "Amalgam From the Sanitary Point of View." Discussion headed by Dr. Frank French and Dr. W. A. White. Office Incidents headed by Dr. P. H. Smith.

April 9, 1901, office of Dr. C. T. Howard, Dr. F. Messerschmitt on "Operative Prophylaxis of the Oral Cavity." Discussion headed by Dr. H. H. Tompkins and Dr. H. N. Holmes. Office Incidents headed by Dr. G. H. Thompson.

May 14, 1901, office of Dr. J. E. Line, Dr. J. Requa on "Is Decalcified Necessarily Devitalized Dentine?" Discussion headed by Dr. I. C. Edington and Dr. J. S. Furner. Office Incidents headed by Dr. H. J. Cull.

June 11, 1901, office of Dr. H. S. Miller, Dr. F. H. Lee on "New Appliances and Methods." Discussion headed by Dr. F. A. Green and Dr. F. M. Rood. Office Incidents headed by Dr. L. C. Jones.

Special, office of Dr. J. Requa, Dr. J. N. Crouse on "Prof. Black's Experiments and the Test of Time." Discussion headed by Dr. C. S. Butler.

Special, office of Dr. F. M. Rood, Dr. J. Edward Line on "Tooth Decay a Race Characteristic." Discussion headed by Dr. J. G. Van Marter.

Jefferson County Dental Society.

The sixth annual meeting of the Jefferson County Dental Society will be held in Watertown, N. Y., December 10, 1900. A very strong program, consisting of papers, clinics and demonstrations is being prepared by the Business Committee.

E. E. HARRINGTON, Secretary.

Watertown, N. Y.

Northern Illinois Dental Society.

At the thirtieth annual meeting of the Northern Illinois Dental Society held at Aurora, October 24 and 25, the following officers were elected: President, W. C. Bunker, Oregon; Vice-President, C. R. Currier, Aurora; Secretary, J. J. Reed, Rockford; Treasurer, M. R. Harned, Rockford. Member of Executive Committee, A. W. McCandless, Chicago.

Joliet, Ill., next place of meeting.

J. J. REED, Secretary.

Rockford, Ill.

Ohio State Dental Society.

The thirty-fifth annual meeting of the Ohio State Dental Society will be held at Columbus, O., December 4, 5 and 6, 1900. All members of the profession are cordially invited to attend.

S. D. RUGGLES, Secretary.

Portsmouth, O.

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Vol. XXII - No. 12
December
1900



R. Ottolengui, M.D.S.
Editor
115 Madison Ave.
New York



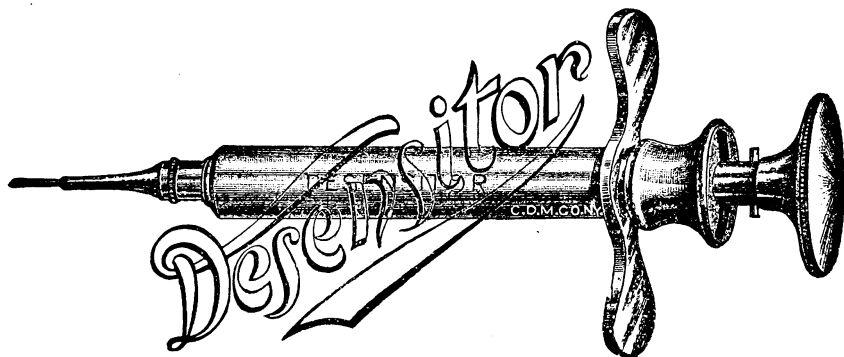
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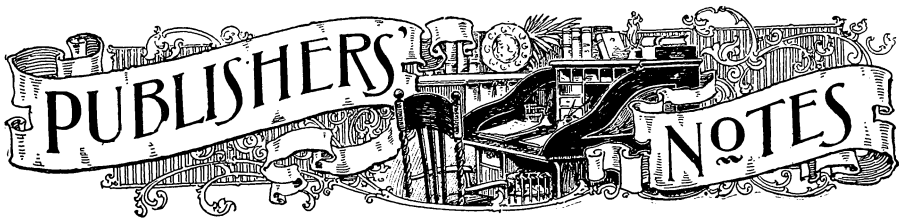
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Vol. XXII.—No. 12

This number of *ITEMS OF INTEREST* completes its Twenty-second Volume. It also completes the fourth volume produced under the present editorship and management, and in the magazine's present form.

From the standpoint of publishers, we feel grateful to the Dental Profession for the very generous support the magazine has received for the past four years, and especially during the year just closing. Gradually, from month to month, numerous new subscriptions and renewals of old subscriptions have been received, until now the subscription list of *ITEMS OF INTEREST* contains the names of nearly three-fourths of all of the practicing dentists in the United States, besides a large number in Canada, Mexico and other foreign countries. Several thousands of dentists, who had not previously received the *ITEMS*, are recorded as subscribers to its XXIInd volume, while the number of subscriptions not renewed is extremely small.

A glance through the previous numbers of this volume will show the work that has been accomplished for *ITEMS OF INTEREST* during the past year. That the showing is creditable, we admit; but the good work will not cease. Each succeeding year must exhibit a marked improvement in the magazine. Expense has not been and will not be spared in an endeavor to make the magazine from every point of view the very best publication devoted to the science of dentistry.

Notwithstanding the improvements already accomplished, the subscription price remains as before, One Dollar a year, in United States and Canada. Foreign countries, \$2.00 per year.

If your subscription expires with this number, the publishers will earnestly appreciate its prompt renewal.

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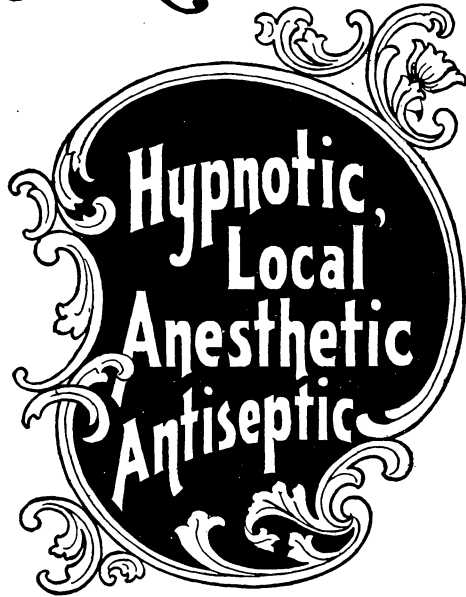
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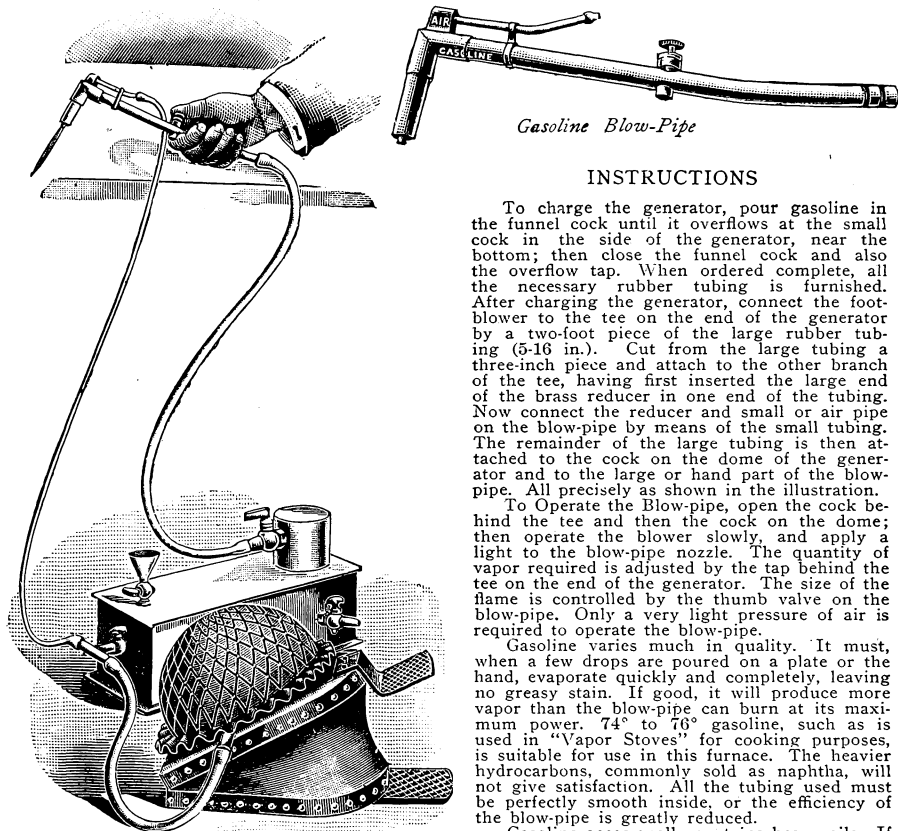
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The generator is useless except with a supply of air under pressure, and will, therefore, have to be operated in connection with a foot-blower, as shown in the illustration.



INSTRUCTIONS

To charge the generator, pour gasoline in the funnel cock until it overflows at the small cock in the side of the generator, near the bottom; then close the funnel cock and also the overflow tap. When ordered complete, all the necessary rubber tubing is furnished. After charging the generator, connect the foot-blower to the tee on the end of the generator by a two-foot piece of the large rubber tubing (5-16 in.). Cut from the large tubing a three-inch piece and attach to the other branch of the tee, having first inserted the large end of the brass reducer in one end of the tubing. Now connect the reducer and small or air pipe on the blow-pipe by means of the small tubing. The remainder of the large tubing is then attached to the cock on the dome of the generator and to the large or hand part of the blow-pipe. All precisely as shown in the illustration.

To Operate the Blow-pipe, open the cock behind the tee and then the cock on the dome; then operate the blower slowly, and apply a light to the blow-pipe nozzle. The quantity of vapor required is adjusted by the tap behind the tee on the end of the generator. The size of the flame is controlled by the thumb valve on the blow-pipe. Only a very light pressure of air is required to operate the blow-pipe.

Gasoline varies much in quality. It must, when a few drops are poured on a plate or the hand, evaporate quickly and completely, leaving no greasy stain. If good, it will produce more vapor than the blow-pipe can burn at its maximum power. 74° to 76° gasoline, such as is used in "Vapor Stoves" for cooking purposes, is suitable for use in this furnace. The heavier hydrocarbons, commonly sold as naphtha, will not give satisfaction. All the tubing used must be perfectly smooth inside, or the efficiency of the blow-pipe is greatly reduced.

Gasoline occasionally contains heavy oils. If the generator works badly, empty and recharge

with fresh gasoline. At the conclusion of an operation can then be left for any period ready for instant use.

CLOSE ALL TAPS on the generator. It

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In the following illustrations, we have endeavored to show a few of the features of the MERKER CHAIR. Our best description, however, could not do it justice. It must be seen to be fully appreciated.

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The Merker Dental Chair



The Merker Dental Chair in its lowest normal position, measuring $17\frac{1}{2}$ inches from the floor to seat. The lowest pedal lever chair in the world.

The Merker Dental Chair

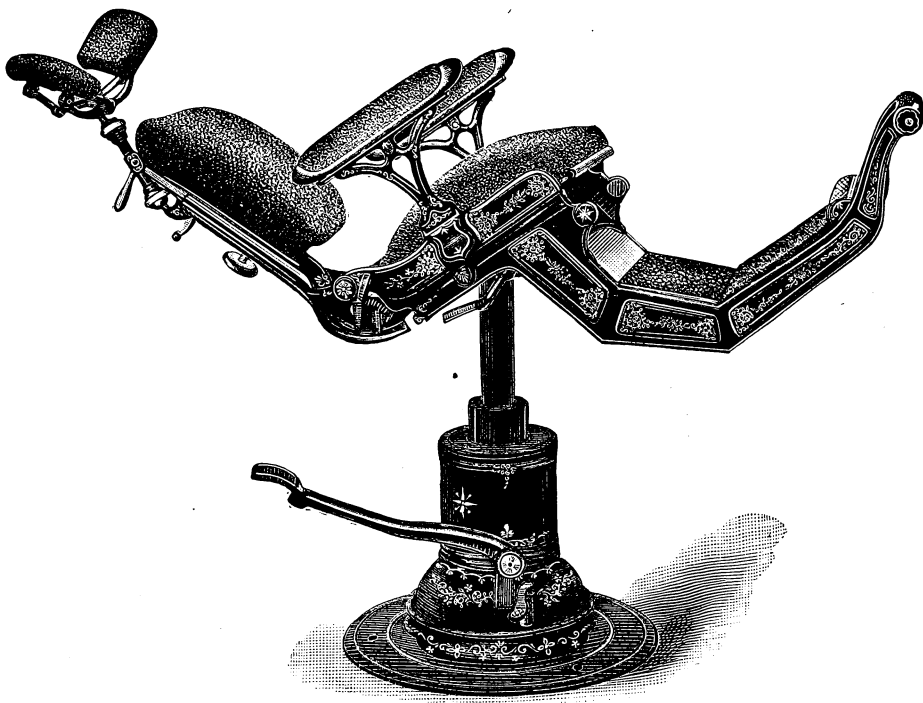
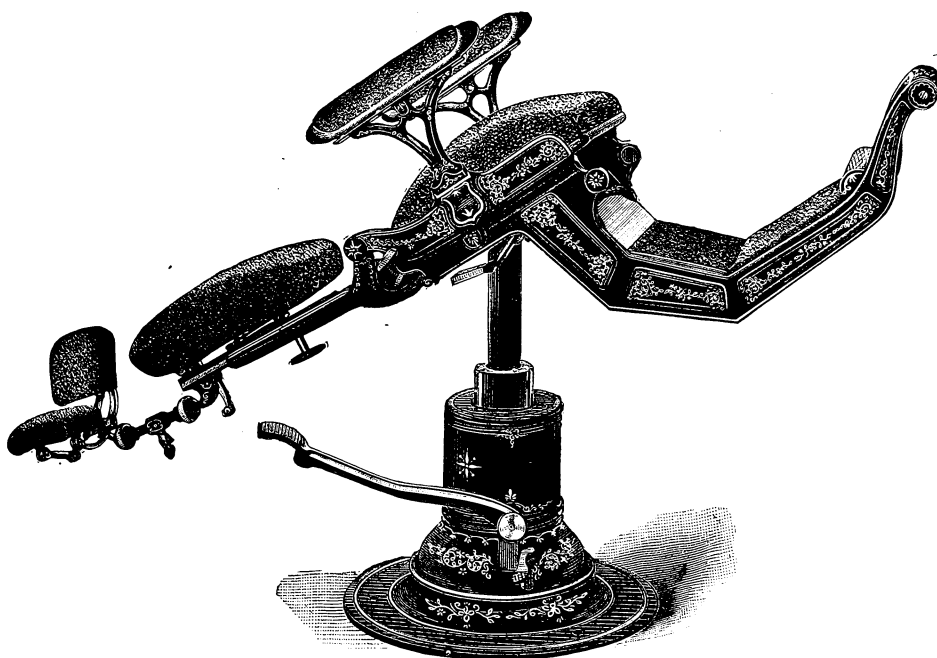


Illustration showing a reclining position at a medium height.

The Merker Dental Chair



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This is a head rest that will give comfort to the patient and consequent ease of operation to the dentist. It is absolutely self-adjusting by the patient; the mere placing of the head upon the pads locking them firmly in the desired position.

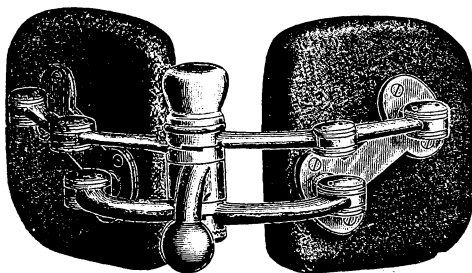


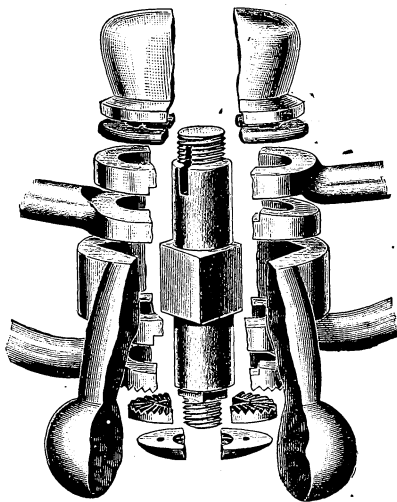
Fig. 1 shows the complete head rest. Each pad is 4 x 5 inches, upholstered to correspond to the upholstery of the chair, and placed upon the levers, as illustrated; the working of these levers is well shown in Fig. 2. Each lever has an incline taper on its supporting end, and each pair of levers form a cam joint. The locking device consists of a center post on which

the levers pivot above and below the center. The underside of the lower lever is toothed to fit into similar teeth in the base support; this support is held firmly in place against the center post by a jam nut forcing it against a squared portion of the post.

The ball socket shank has a square hole through its center into which fits the square part of the center post; sufficient space is allowed for the slight up and down movement of this post, necessary to take up the expansion and contraction of the two cam joints when the pads are being adjusted at different angles.

The small hand screw at top of locking device needs only be loosened or tightened when the space between the pads needs to be changed to fit the head; ordinarily it need never be touched, as the ample adjustment of the head rest gives the necessary comfort. This screw will not tighten through use; this is prevented by the washer shown.

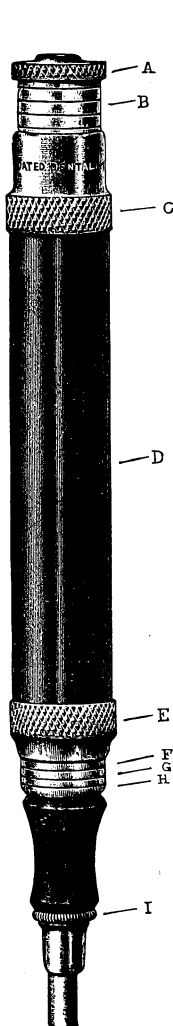
To adjust the head rest place chair and head rest at desired angle; let the patient put a hand under each pad, slightly draw the pads toward each other, arrange the head comfortably in any desired position, let go the pads, and they are locked immediately. The "face" position is secured by pressing the pads together (this disconnects the teeth on the lower lever and base, allowing the levers to pivot) pushing both to the desired side, drawing apart as far as necessary, and the head locks them into position. The weight of the head forces the levers outward, which brings the cam joints together, thus wedging all tightly against the toothed surfaces at the bottom and screw at the top.



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By screwing the smaller section of the case, I, in or out a little, the amount of "slack" or distance which the spring catch passes by the hammer catch to insure its engagement, can be adjusted. In this instrument, the "slack" can be made more or less, to suit the ideas of its user.

The force of the spring which actuates the hammer is regulated by the screw cap A, which is screwed into the section D to increase the force of the blows. It is held securely, when adjusted, by the knurled ferrule C; the force of the blow being estimated by the number of the scores B which are exposed. The more of them there are in sight, the lighter will be the blow.

TO ASSEMBLE THE INSTRUMENT.

Put in the hammer, large end first, then its spring, and screw on the cap A. Hold the case, or large section of the instrument containing the hammer, in one hand, with the side-screw up. Take the smaller section, or nose-piece, in the other hand, with the threaded part resting upon the tips of the fore and middle fingers, the thumb upon the butt of the spring catch, and the socket end in the palm of the hand. Keep the spring catch in line with the screw head on the side of the case, and it will enter the groove in the hammer. Rotate the nose-piece slightly, and push it in as far as it will go, and screw the two sections of the case together while holding it there.

In oiling the instrument, use none but the finest oil; our Champion Dental Engine Oil is recommended. Thick, heavy oils, or those which become gummy, will interfere with the proper working of the instrument. Only a small quantity of oil is required.

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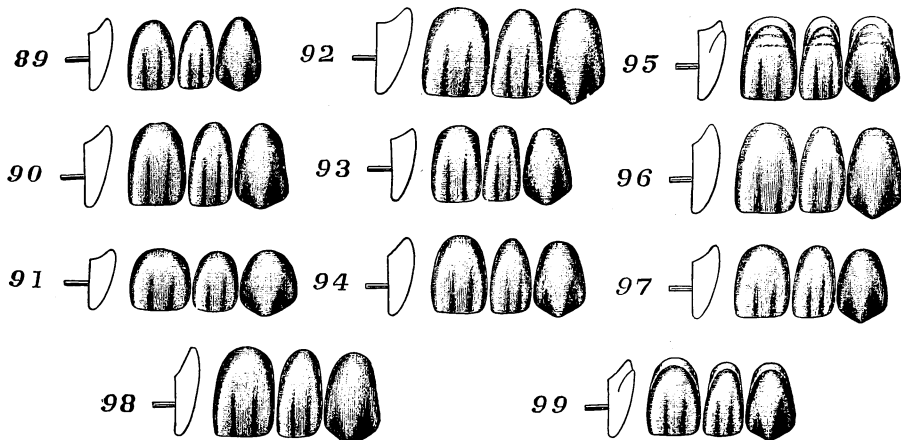
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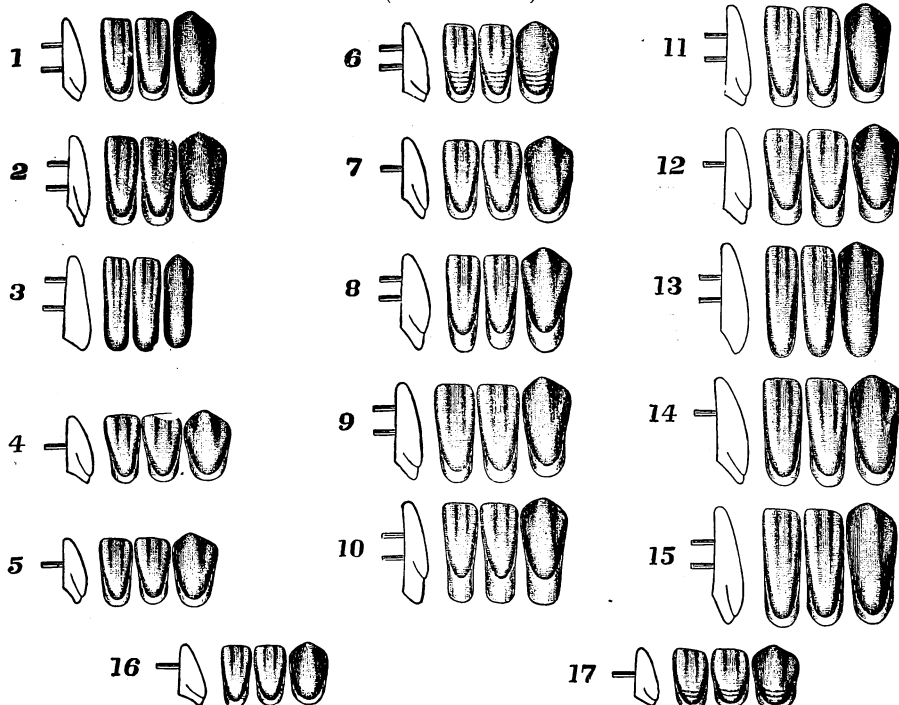
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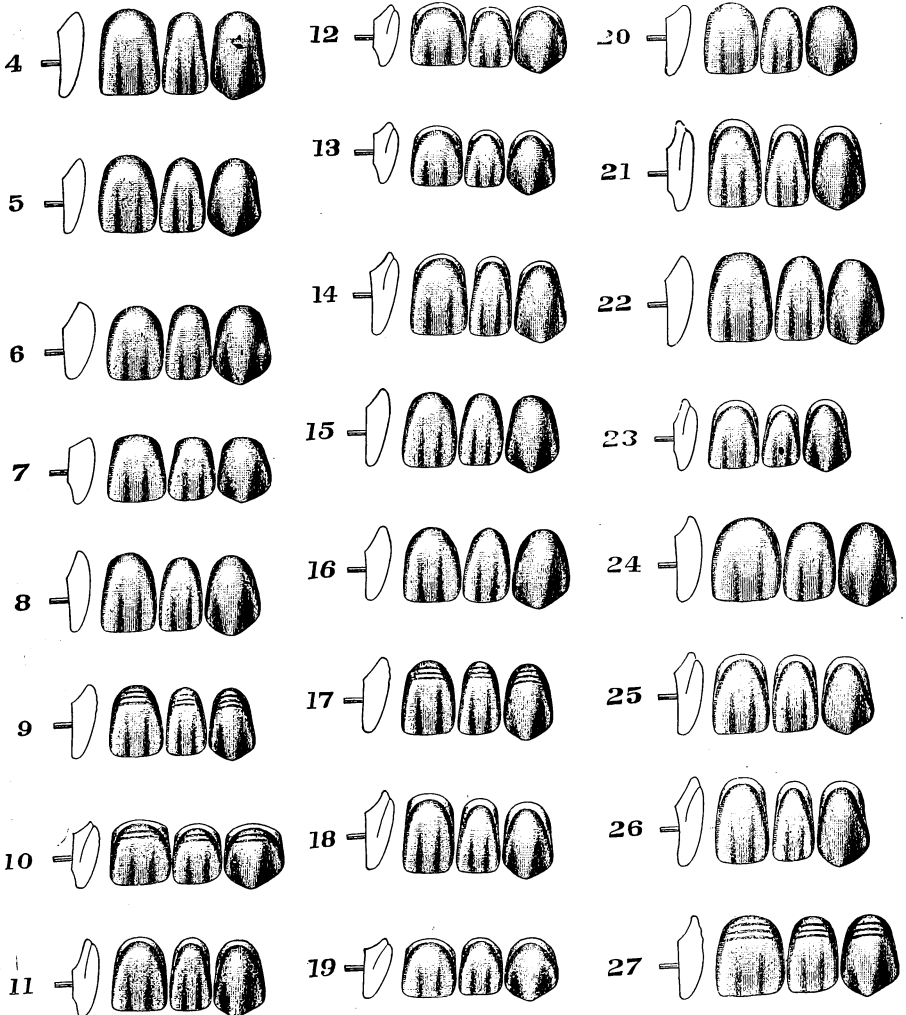


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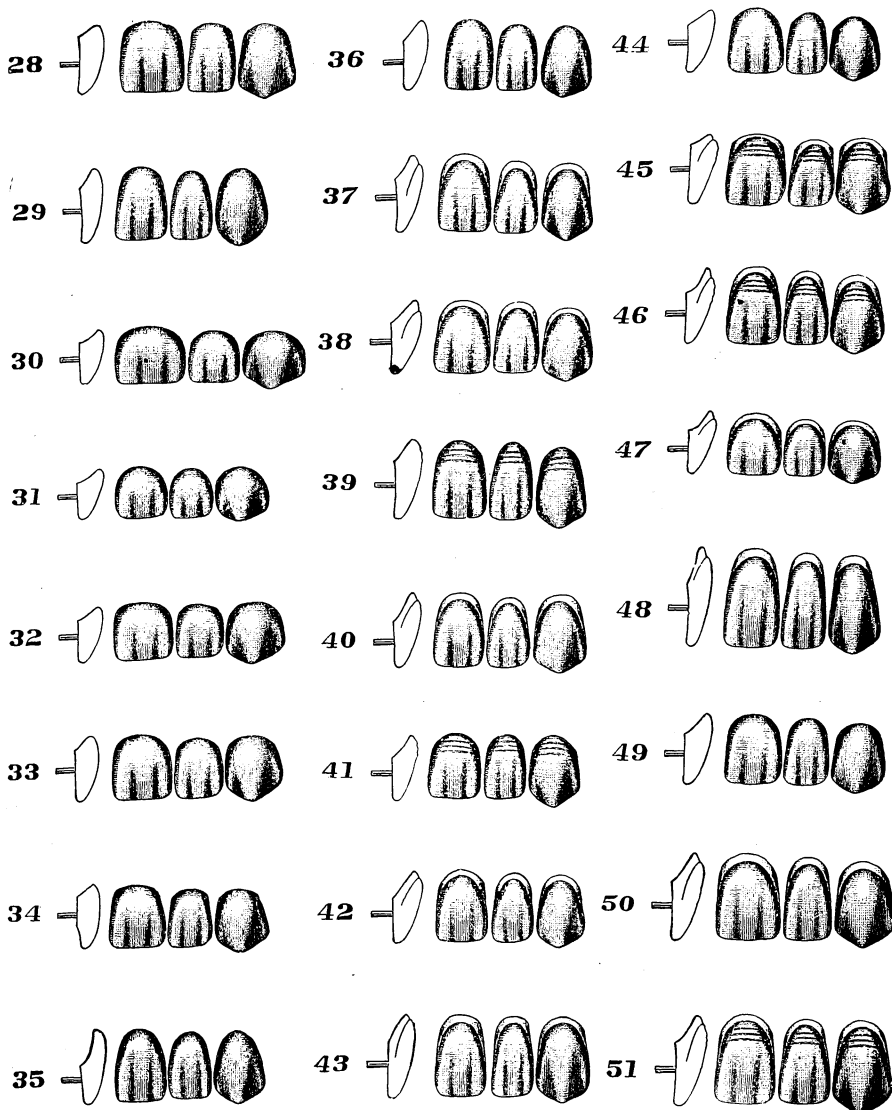
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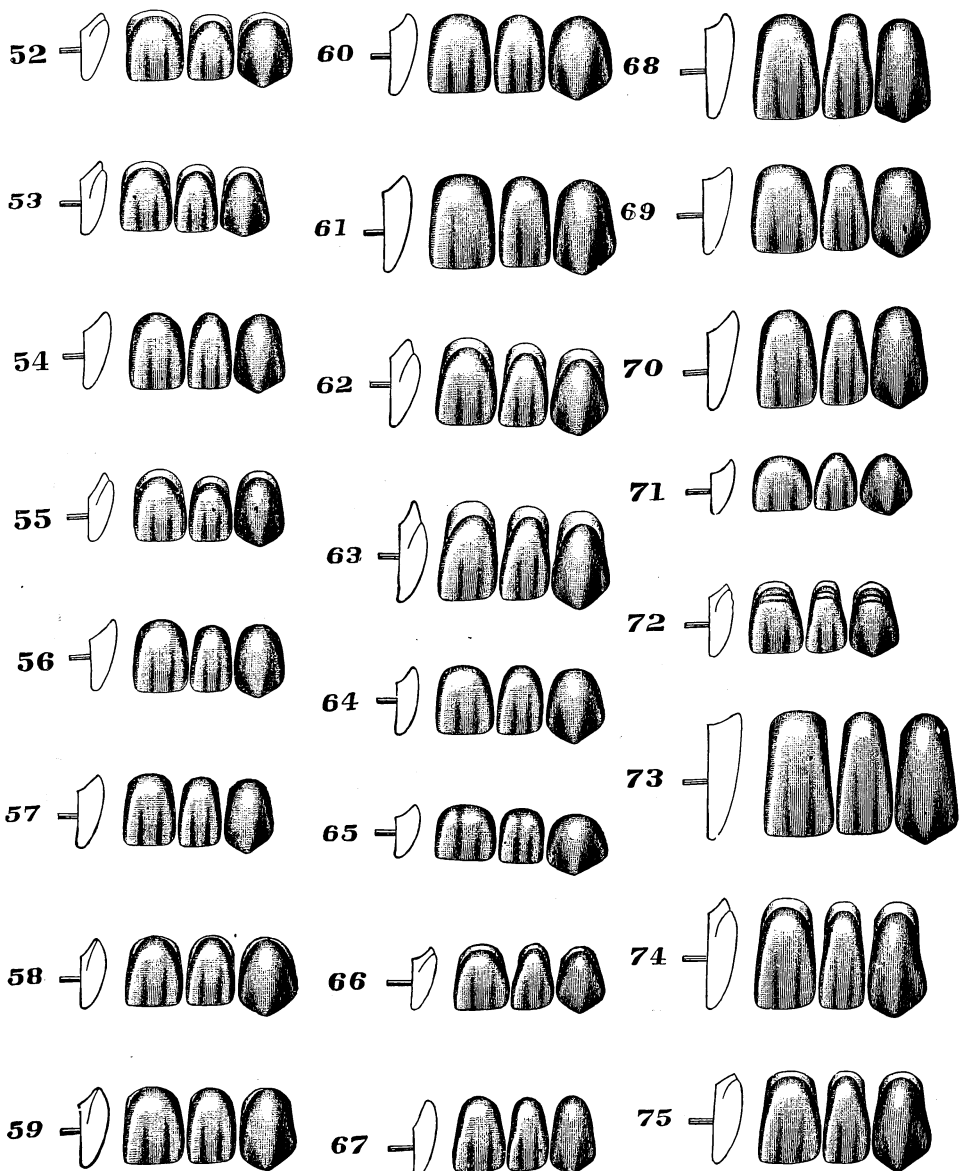
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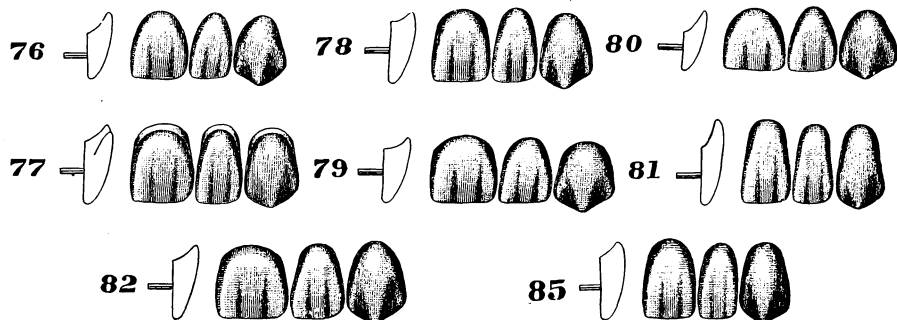
NOTE—Any of these patterns are furnished with short or long pins SET LENGTHWISE when so ordered.

Consolidated Dental Manufacturing Co.'s Porcelain Teeth

FLATBACK UPPERS.

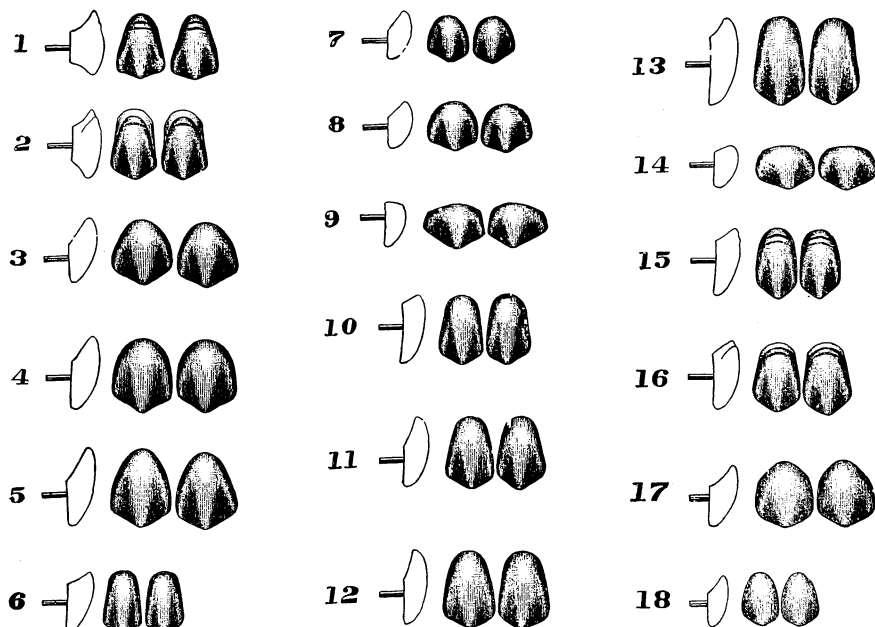
(In Sets of 6s.)

With Long, Straight Pins, Set Crosswise. For Plate or Rubber Work.



FLATBACK UPPER CUSPIDS.

(In Sets of 2s.)

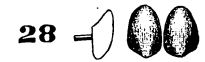
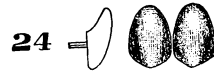


NOTE—Any of these patterns are furnished with short or long pins SET LENGTHWISE when so ordered.

Consolidated Dental Manufacturing Co.'s Porcelain Teeth

FLATBACK UPPER CUSPIDS.

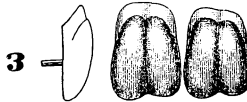
(In Sets of 2s.)



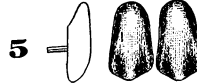
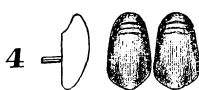
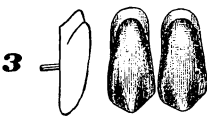
FLATBACK MOLARS AND BICUSPIDS.

(In Sets of 2s.)

Molars.



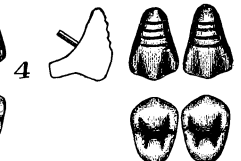
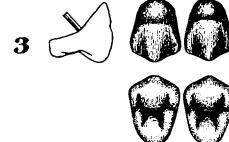
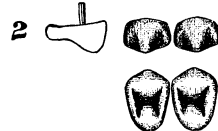
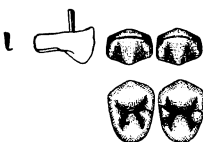
Bicuspids.



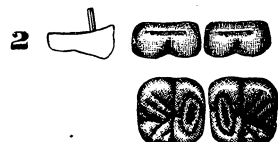
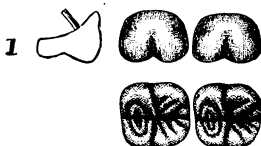
SADDLEBACK BICUSPIDS AND MOLARS.

(In Sets of 2s.)

Bicuspids.



Molars.



NOTE.—Any of these patterns are furnished with short or long pins SET LENGTHWISE when so ordered.

THE LATE R. S. WILLIAMS
NEVER RECOMMENDED
A THING THAT
WAS NOT
GOOD.

Read what He said about Ariston Alloy

ARISTON ALLOY.

This Alloy for Amalgam is designed to have the best average of desirable qualities, and to be thoroughly reliable.

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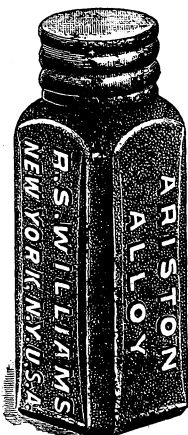
Third—The Amalgam sets well, making a hard filling with strong edges.

Fourth—When properly worked, it will compare favorably with any amalgam as regards shrinkage.

Fifth—The color is *very white*. It has stood well in the mouth, and there is no reason to think that it will not hold color as well as any amalgam can do.

Ariston Alloy is made in the form of filings only; it is put up in ounce and half-ounce screw-capped glass vials, and may be ordered from the Consolidated Dental Mfg. Co. or any of their branches, agencies or correspondents throughout the world.

The price of Ariston Alloy is \$3.00 per Troy ounce; two ounces, \$5.50; four ounces, \$10.00.



FOR THE PAST QUARTER OF A CENTURY
THE LEADING PLASTIC FILLING MATERIAL

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TO TOOTH
COLOR

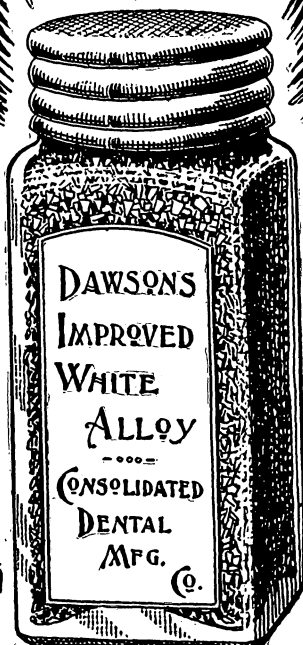
DOES NOT
DISCOLOR
THE TOOTH

FOUR
DOLLARS
PER
TROY
OUNCE

OUNCE
AND
HALF OUNCE
PACKAGES

EASILY
MANIPULATED

REMAINS
SMOOTH
AND HARD



RESISTS CORROSION

EACH PACKAGE
CONTAINING THE
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PERSONALLY
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DR. DAWSON
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Oliver Dawson

To any dentist sending us One Dollar, we will forward by return mail a trial package of Dr. Dawson's Improved White Alloy, containing one-quarter ounce. We offer this in order that those of the profession who have not yet taken opportunity to use this very superior plastic filling material may be convinced of its truly remarkable qualities.

Consolidated Dental Manufacturing Company,
New York, Boston, Philadelphia, Brooklyn, Chicago, Atlanta, New Orleans.

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The Best Cement
For Setting Crowns



The glue-like adhesiveness and ease of manipulation that characterize this celebrated German Fused Oxide, render its superiority, for attaching crowns, unquestionable. It is smooth, very easily worked, and does not crystallize.

German Fused Oxide is furnished in two-bottle packages, with choice of either yellow or grey powder, at the price of One Dollar.

Best
for
Filling
Teeth



The "Plastic Porcelain" Cement is sold in full size packages (containing two bottles of powder and one bottle of paste) for \$2.00. It is also sold in packages at \$1.50, and a sample package can be had for \$1.00.

PRICE LIST OF PRECIOUS METALS FOR CROWNS, BRIDGES REGULATING, PLATES FOR ARTIFICIAL TEETH, ETC.

STANDARD GOLD

is practically melted money, and is turned over to the consumer at an exceedingly close margin of profit to the makers.

ONE DWT.

18 Kt.



ALL PRICES ARE NET CASH WITH ORDER OR C. O. D. PACKAGES, the express companies include a charge for the return of the money which we are obliged to add to the bill. By remitting Money Order or Draft on New York with order for other goods, the expense of these charges will be avoided.

These Gold Plates are uniformly soft and tough. The Gold Solders are put up in envelopes as illustrated. The manufacture of these metals is the result of years of experience according to the suggestions of many of the most skilful dentists, and it is believed that these metals are not excelled by any in the world. Dentists who use them can rely on getting the best that can be obtained.

Always specify sizes of plates and wires by the Standard Plate and Wire Gauge.

STANDARD GOLD SOLDER.

		Price per dwt.
No. 22.	For use on 22 K. plate.....	\$1.10
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No. 18.	For use on 18 K. plate.....	.90
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No. 14.	cannot be used to flow the higher	.75
No. 12.	qualities.....	.70

On GOLD SOLDERS in ounce lots, a reduction of 50 cents per ounce is made for "spot" cash.

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	Price per dwt.		Price per dwt.
24 K. Pure gold	\$1.20	18 K. Made from pure gold.....	.95
22 K. Made from pure gold.....	1.15	Clasp plate. Gray color, tough and springy.	1.05
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STANDARD GOLD WIRE.

	Price per dwt.		Price per dwt.
20 K. Round or half round.....	\$1.15	Clasp wire. Round or half round.....	\$1.15
18 K. Round or half round.....	1.05	Ligature wire	1.40

NON-OXIDIZABLE CROWN GOLD.

Is a new alloy which will not tarnish in annealing, and is richer in color than pure gold. It is nearly 24 karats in fineness, but contains a little alloy, which makes it just enough stiffer than pure gold to retain its shape in working.

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Has the gray color of clasp plate, which makes it less conspicuous than ordinary crown gold; is strong and stiff enough so it can be used very thin. Price, Per dwt., \$1.05.

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Easy flowing. Good color. Price, per dwt., \$.09

GRANULATED SILVER.

999-1000 fine. Price per dwt.....\$.08

GOLD-FACED PLATINUM.

Gold-faced Platinum, which is Pure Gold on one side and Pure Platinum on the other, equal parts, is useful for Crown and Bands, because it can be soldered without danger of melting, gives the exact color of fine gold, and can be filled inside with amalgam, which will not act on the Platinum.

Price per dwt., \$1.15.

PLATINUM.

Plate	Prices fluctuate
Wire	"
Iridio-platinum wire	"

SILVER PLATE.

Any gauge desired. Price, per dwt.....\$.08

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No. 22 and No. 24, B. & S. Standard Gauge.
Price, per oz.....\$.20

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R.S. WILLIAMS,
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GOLD
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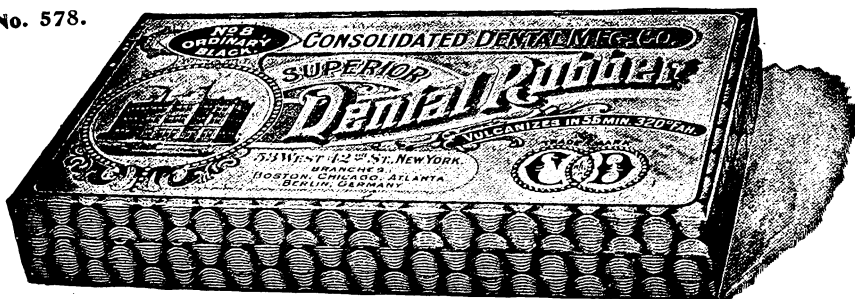
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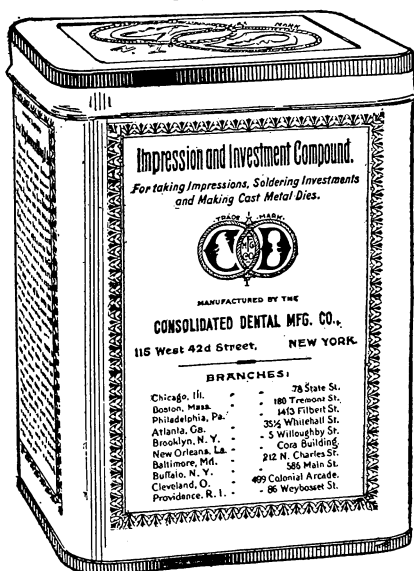
In very warm weather the No. 3, or hard grade, can be used advantageously.

Our Modeling Composition is put up in half-pound enameled tin boxes, and to avoid possible mistake, each of the cakes bears our name and trade-mark. Price, per pound. 75 cents; by mail, 8 cents per half-pound box extra for postage.

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Number **563 A**



For taking Impressions, Soldering Investments and Making Cast Metal Dies.

This compound will be found invaluable as a substitute for plaster for impressions, etc., being superior in many respects.

It DOES NOT ADHERE to the teeth but gives an impression of the mouth, which, for evenness of surface and glossy appearance, surpasses anything that can be obtained with plaster.

Its smoothness permits its spreading evenly and freely into the spaces between the teeth or fissures in the crowns, overcoming all the annoyance incident to the use of plaster.

It is especially advantageous for soldering investments and making cast metal dies. The finished die made from this compound shows EVERY LINE, TOOTH AND UNDERCUT, SHARP, DISTINCT AND SMOOTH.

Put up in neat tin cans.

Price per can, about one quart or two pounds, 25 cents.

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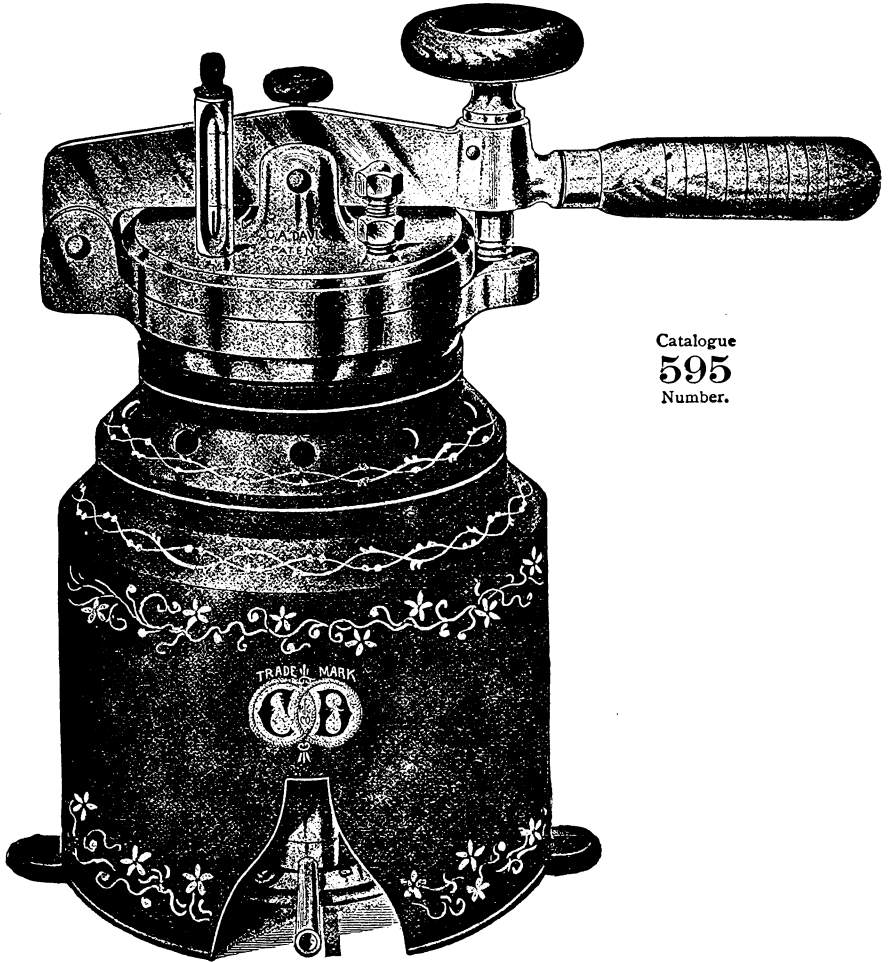
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DR. CHAS. A. DAVIS' Improved Cross-Bar Vulcanizer.

Patented, March 20, 1894.



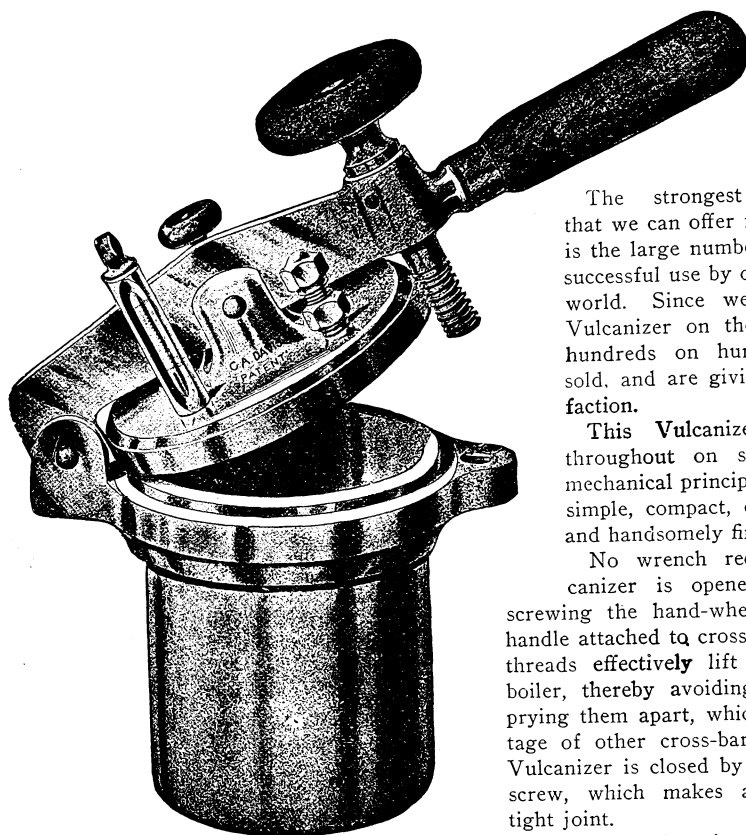
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PRICES.

3-Case Vulcanizer, for Gas or Kerosene.....	\$20.00
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2-Case Vulcanizer, with Steam Gauge.....	22.00

Dr. Chas. A. Davis' Improved Cross-Bar Vulcanizer.

(CONTINUED.)



The strongest recommendation that we can offer for this Vulcanizer is the large number that are now in successful use by dentists all over the world. Since we first placed the Vulcanizer on the market in 1897, hundreds on hundreds have been sold, and are giving universal satisfaction.

This Vulcanizer is constructed throughout on scientific and best mechanical principles. It is extremely simple, compact, durable, well-made, and handsomely finished.

No wrench required. The Vulcanizer is opened by simply unscrewing the hand-wheel and lifting the handle attached to cross-bar. The two last threads effectively lift the lid from the boiler, thereby avoiding the necessity of prying them apart, which is the disadvantage of other cross-bar vulcanizers. The Vulcanizer is closed by turning down this screw, which makes a perfectly steam-tight joint.

Each Vulcanizer is regularly furnished with the Davis Improved Thermometer, a substantial Blow-off Valve and a Safety Valve. The Safety Valve contains a thin metal disk which will give way under excessive pressure of steam and thus prevent an explosion. When so ordered, our Gas Regulator, with Timing Attachment, or our special Steam Gauge, will be added, at extra cost indicated in list of prices.

The Boiler or Pot is seamless and extra heavy. The entire lower part below the lid is made in one solid piece, thus avoiding any opportunity for a weak joint or leakage if the collar were brazed to the pot, as in other cross-bar vulcanizers. The inside diameter of the boiler is $4\frac{1}{4}$ inches, sufficient to take the largest flasks, and is of sufficient depth to admit the Donham Spring.

The cross-bar is made of extremely hard gun metal and is constructed on scientific principles, being heavily reinforced at the center, where the greatest pressure is exerted. The handle of the cross-bar is hard wood, of suitable size. It is securely fastened to the cross-bar by means of a bolt and blind nut, which is countersunk within the end of the handle, making it impossible to burn the hand grasping the same. The hand-wheel screw and tapered bolts which hold the bar to the boiler and lid to the bar are of the best cast steel. The wooden hand-wheel is securely fastened to the screw and can be operated without further protection from the heat.

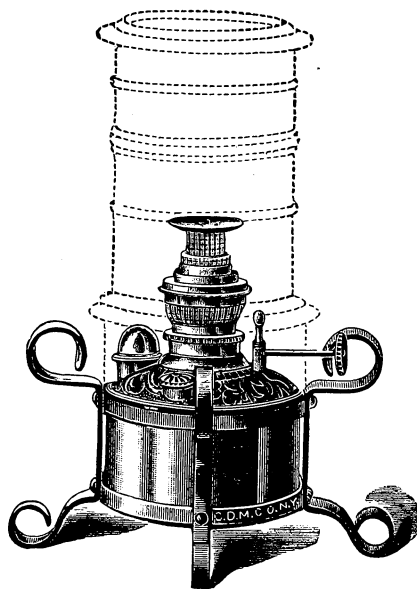
The Packing used in the Vulcanizer is of moulded carbon or graphite, last for years without being renewed.

Dr. Chas. A. Davis' Improved Cross-Bar Vulcanizer.

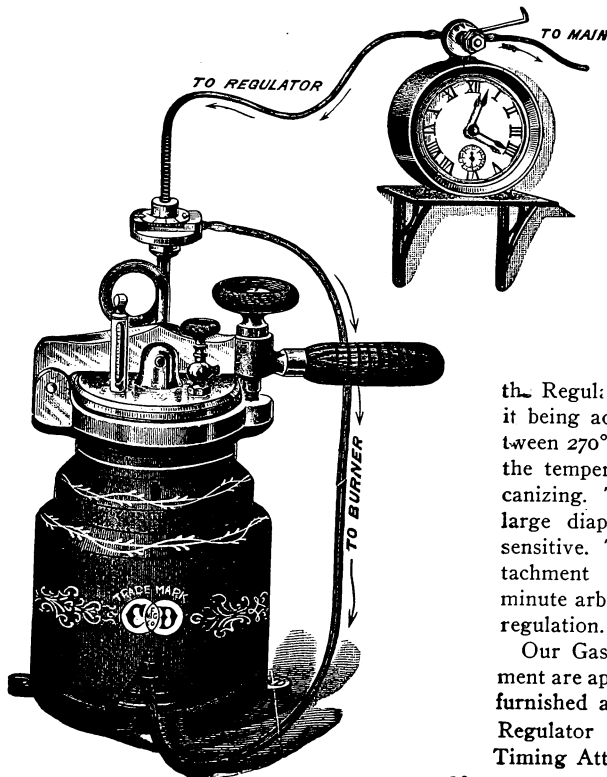
THE KEROSENE HEATING ARRANGEMENT.

We would invite particular attention to the unique kerosene heating arrangement as furnished with this Vulcanizer. It consists of an improved kerosene lamp, constructed on the standard center-draught principle. It gives intense heat and the flame can be regulated to a nicety. The oil reservoir has an indicator showing when it is full, and empty, which is an advantage when refilling. The iron stand is light, strong and of neat form. The jacket is made of sheet iron, and has an isinglass door convenient to the burner. This kerosene arrangement is a great improvement over anything ever before furnished for vulcanizers where gas is not used.

Price, \$4.00.



THE GAS REGULATOR.



We illustrate herewith the Davis Improved Cross-bar Vulcanizer fitted with our Gas Regulator and Timing Attachment. The Gas Regulator checks the flow of gas so as to hold the temperature of the Vulcanizer at the degree desired. The Timing Attachment shuts off the flow of gas at the right time. If a higher or lower temperature is desired

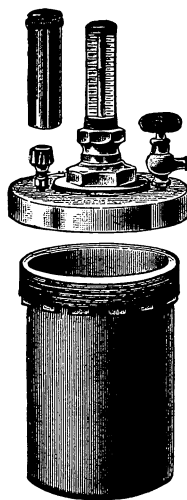
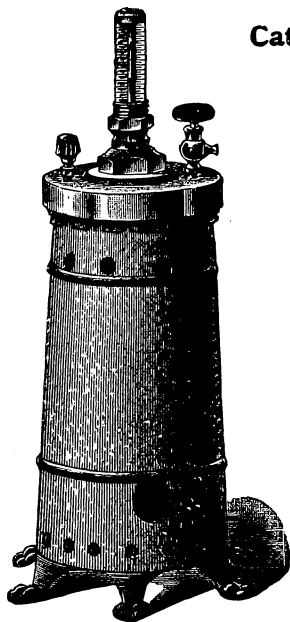
the Regulator can be adjusted accordingly, it being adjustable to any temperature between 270° and 330°, this range comprising the temperatures applicable to dental vulcanizing. The Gas Regulator has an extra large diaphragm, rendering it extremely sensitive. The gas valve of the Timing Attachment is operated by the threaded minute arbor and is capable of very delicate regulation.

Our Gas Regulator and Timing Attachment are applicable to any vulcanizer and are furnished at the price of \$8.00.

Regulator\$5.00
Timing Attachment 3.50

THE WHITNEY VULCANIZER.

Catalogue No. 598.



The Whitney Vulcanizer consists of a copper pot 4 inches in diameter, on which a brass head is screwed, a steam tight joint being secured by means of a rubber packing in the head, which bears upon the edge of the pot. The pressure is thus brought evenly upon the parts, the screw thread supporting the pot and preventing it from being drawn out of true. This system of screw fastening has been found to work satisfactorily for many years, and is yet recommended by some practitioners in place of the lever-locking device. The safety disk will blow out at 340 degrees and allow the steam to escape, if, by any oversight, the heat should be increased beyond the 320 degrees limit.

The vulcanizer is also supplied with a neat blow-off valve, whereby the steam may be blown off at any time to reduce the heat after vulcanization, or to blow off air after the steam is up, as the presence of air in the vulcanizer while vulcanizing will cause the mercury in the thermometer to vary. The mercury bath thermometer is applied to the vulcanizer, the bulb of the thermometer being immersed in the mercury and thereby protecting it from the destructive action of the steam.

The Whitney Vulcanizer is supplied with a heating apparatus for the use of either gas, alcohol or kerosene. Unless specified, we always send our 4-inch oil stove with this vulcanizer. This is a very efficient heater, and one that will not get out of order easily. The price is the same, whether for gas, alcohol or kerosene.

For locking or covering Whitney Vulcanizer, Wrench 601 A and the Round Wrench 601 B will always be sent unless others are designated.

If it is convenient to cut a hole in bench to receive the vulcanizer, allowing wrench and bed-plate to be used, we would recommend 601C Bed-plate, and 601A Bed-plate Wrench.

No. 598 A—Complete with Gas Heating Apparatus.

No. 598 B—Complete with Kerosene Heating Apparatus.

No. 598 C—Complete with Alcohol Heating Apparatus.

PRICES:

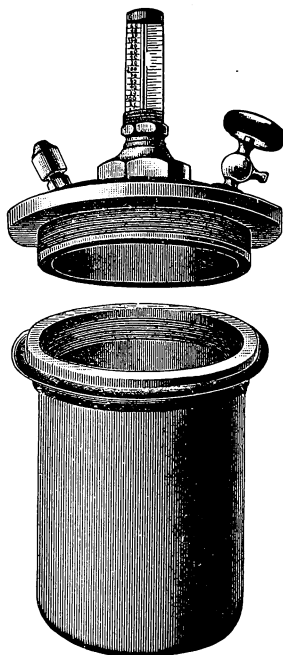
Either style, 2-flask capacity, \$12.00.
 " " 3-flask " 14.00.

THE BOSTON VULCANIZER.

Catalogue No. 597.



CLOSED.



OPEN.

This Vulcanizer is made of the best Bronze, so-called "Gun Metal," and is tested at one thousand pounds hydraulic pressure. It will hold three flasks of any kind with Donham spring, and allow plenty of room for handling.

The packing is moulded instead of being cut in strips, and will last for years without being renewed. The cover can be screwed steam tight without the use of a wrench, the same being necessary only to open after being heated. The small quantity of water used (one gill) causes vulcanization by steam instead of water, thus producing better results.

The bed plate jacket, which is screwed to the bench, allows an easy and ready method of handling.

Catalogue No. 597 A—Vulcanizer complete for gas.
" No. 597 B—Vulcanizer complete for kerosene.

Price, either style, \$16.00.

FLASK BOLTS

Catalogue

590

Number

WHITNEY.

Per Set, 12c.

Catalogue

591

Number

WHITNEY SLOT.

Per Set, 12c.

Catalogue

592

Number

STAR.

Per Set, 25c.

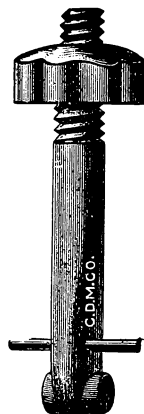
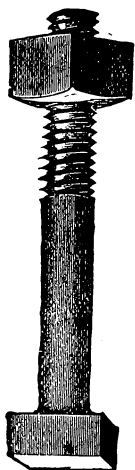
Catalogue

593

Number

HAYES.

Per Set, 25c.



These bolts are made of best quality steel and have perfect threads. The nuts on the Whitney Bolts are made of Norway iron and are extra thick. The Star Flask Bolt has a square thread, and is provided with a brass nut.

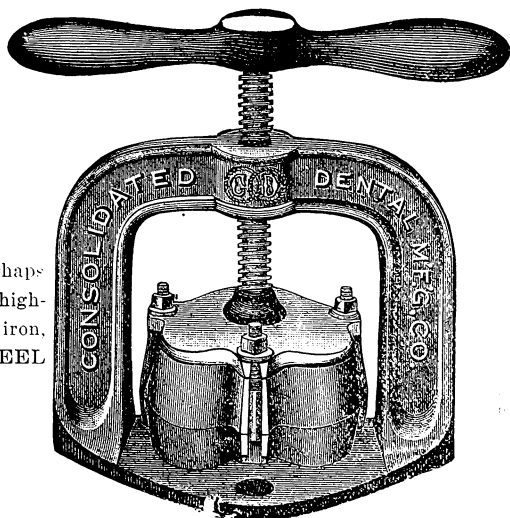
Catalogue

594

Number

FLASK PRESS.

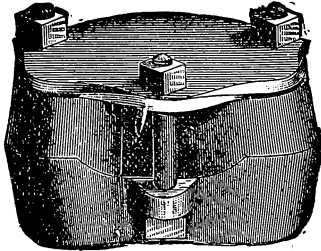
This Press, though low in price, is perhaps better made than many of those much higher in price. The frame is of malleable iron, new japanned, and has a STEEL SCREW, which runs very smoothly.

Price, \$1.50.

VULCANITE FLASKS.

Catalogue
586
Number

WHITNEY FLASK.



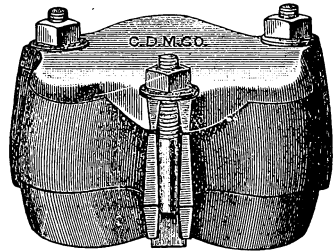
The three bolts pass from the lower section to cover and, with the nuts in position, securely lock the Flask, avoiding all play.

No. 586A—Whitney Flask is 3 5-16 inches from side to side; 1 7-16 inches from top to bottom. Furnished in brass, \$1.25; Malleable Iron, 75c.

No. 586B—Whitney Flask (extra deep) is 1 11-16 inches from top to bottom, the extra depth being advantageous in vulcanization of partial plates. Made in Brass, \$1.25; Malleable Iron, \$1.00.

Catalogue
587
Number

WHITNEY SLOT FLASK.



The dimensions and general form of this Flask are similar to the "Style A—Whitney," except that the bolts are held in position by slots as illustrated. Made in brass or malleable iron.

Brass, \$1.25; Malleable Iron, 75c.

Catalogue
588
Number

THE DONHAM SPRING.

The most simple and reliable spring ever designed for the closure of flasks during vulcanization.

The great advantage of this over bolts is that the flasks are closed in the vulcanizer when the rubber is in its most plastic state, thereby entirely obviating the risk of breaking blocks and models.

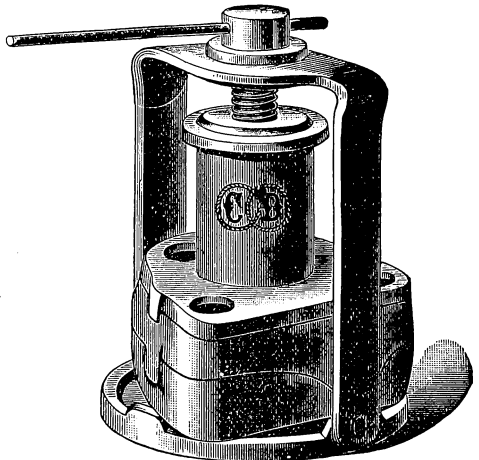
The advantage of the Donham over all other springs is its simplicity and positiveness. The frame is of spring steel and will not get out of order.

Made in two sizes, for two or three flasks.

No. 588A—Spring for two flasks.

No. 588B—Spring for three flasks.

Price, \$1.25.



Catalogue
589
Number

FLASKS FOR DONHAM SPRING.

Price, each \$1.00.

“Perfection” Pink Rubber

Approaches nearer to the natural gum color than any rubber as yet produced and is very strong



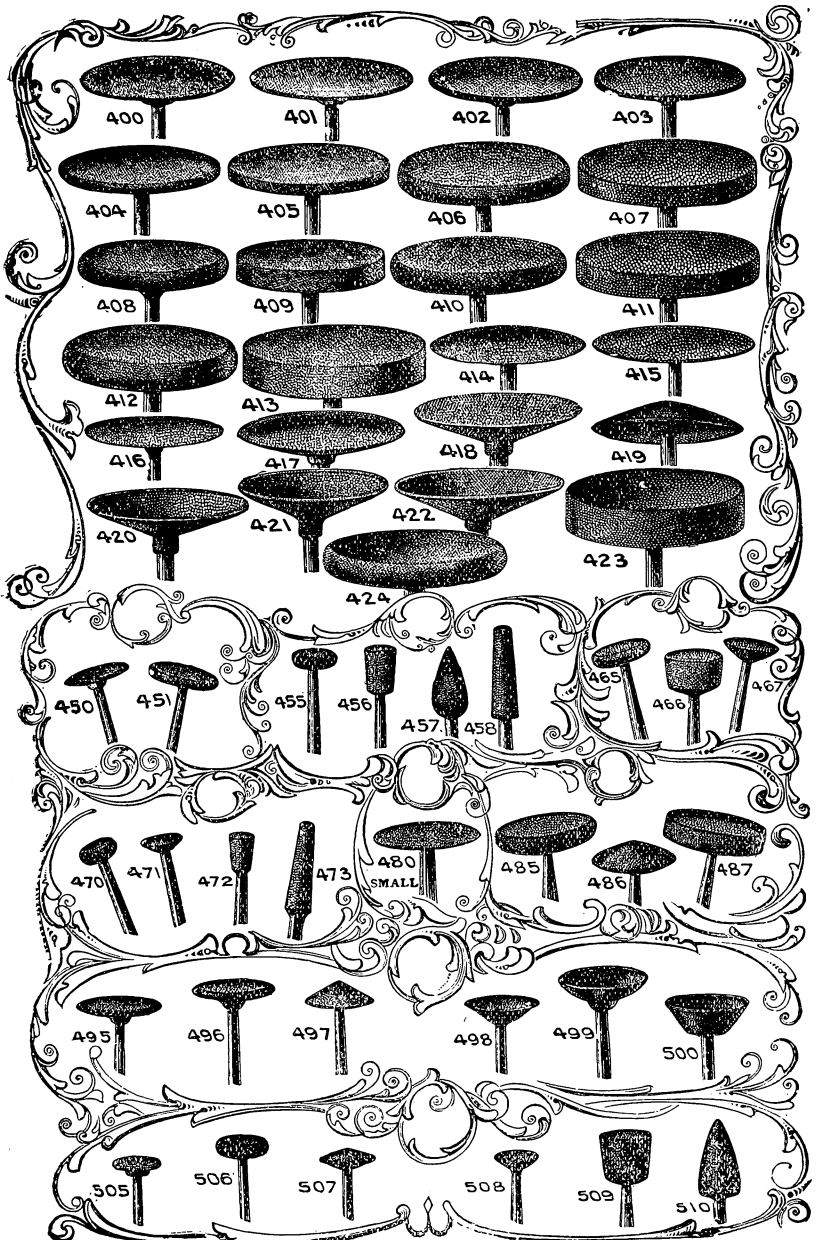
The success that the sale of this vulcanite rubber has met with assures us that it has but to be tried in order to find a permanent place in the laboratory of every dentist who is striving after the most perfect results.

In order to assure you of its merit we will send a free sample on application.

Put up in $\frac{1}{4}$ lb. package

Consolidated Dental Mfg. Co.

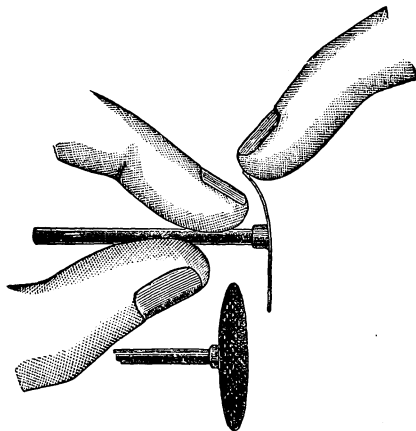
LEAMING'S "VULCAN" CARBORUNDUM AND CORUNDUM WHEELS, DISKS AND POINTS.



No. 64.

LEAMING'S "VULCAN" CARBORUNDUM AND CORUNDUM WHEELS, DISKS AND POINTS.

FOR PLUG-FINISHING AND BRIDGE-WORKING.



No. 480.

These Wheels are made by a new process, rendering them very sharp and tough. They are practically unbreakable, and do not become gummed like ordinary corundum. The character of the binding material makes them so tough as to allow of remarkable thinness all the way through to the mandrel, thus rendering their use possible in places inaccessible with the old-fashioned wheels. Many operators use them as a substitute for the diamond, as they readily cut the enamel; and they can be used for preparing cavities in porcelain teeth.

Each wheel is trued and securely mounted on plain mandrel for the dental engine while in the mould, and is guaranteed to run absolutely true.

Attention is particularly called to No. 480 shown above. It is very thin and flexible, but tough and will bear a hard push edgewise. Intended for separating and polishing.

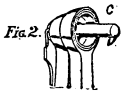
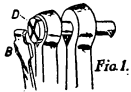
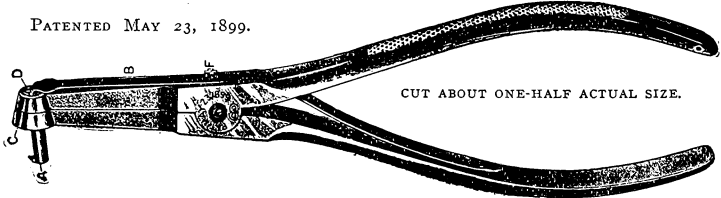
The Vulcan Disks and Thin wheels can be had "Safe-sided" if desired; and will be furnished either side smooth, as called for. Order by number.

PRICE, PER DOZEN,	. . .	\$2.00
" EACH,20

Crown Slitting Forceps.

PATENTED MAY 23, 1899.

Catalogue
653 A
Number.



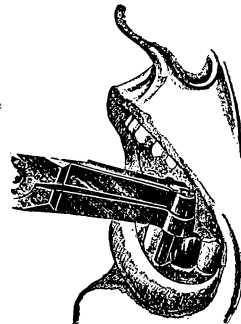
These forceps are entirely unique and superior to anything on the market for removing gold crowns. The small knife blade point is inserted under the cervical edge and the plier rim is rested upon the occlusal end of the crown. Then by simply compressing the handles of the forceps the crown is easily slit lengthwise. In this way a crown or bridge anchorage can be readily and neatly removed and the slit crown replaced if wished, by soldering the slit edges of the crown after bringing them together. The great advantage of this splitter is the fact that by turning the knife, the front side or rear of a crown may be slit with equal ease, and furthermore the point of the knife can not slip off of the crown. All parts of the mouth can be reached with equal facility and without any danger of cutting the cheeks, as the rim prevents the knife from touching the cheeks, should it slip. Extra knives can be procured at a small cost should they become dull.

The knife "A" is to be inserted under the cervical edge of the crown and the rim "C" rested upon the occlusal end of the crown. By lifting the spring "B" the knife may be turned in any position so as to cut any part of the crown or reach any tooth with equal facility. The slit "D" in the top of the knife piece prevents it from turning. The knife piece can be taken out or replaced by lifting the spring "B" and turning it on Fig. "F."

This forcep is made so that it can be taken apart easily and each piece thoroughly cleansed and rendered aseptic.

Figs. 1, 2, 3, 4 and 5 show the different positions of the knife.

PRICE COMPLETE, \$3.50
EXTRA KNIVES, .50

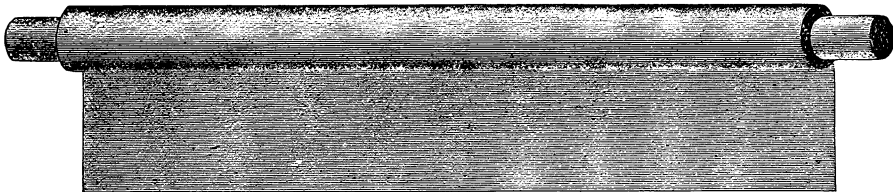


Consolidated  Dental Mfg. Co.

115 WEST 42d STREET, NEW YORK.

Chemically Pure Tin Foil

IN ROLLS.



Our Tin Foil in books long ago established its reputation for purity. In response to the request of numerous practitioners, we now put it up in convenient rolls as illustrated. Each roll contains 5 yards. Price, 25 cents a roll.

IN BOOKS.

No. 4.

“Crescent” Tin Foil

...CHEMICALLY PURE...



*Consolidated
Dental Manufacturing Co.,*

MAKERS OF

**SUPERIOR PORCELAIN TEETH, GOLD AND OTHER FILLING
MATERIAL, INSTRUMENTS, Etc.**

New York.
Philadelphia.

Boston.
Baltimore.

**Providence.
Chicago.**

Brooklyn.
Atlanta.

Buffalo.
New Orleans.

Prices: Nos. 2, 4, 5, 6, 8 and 10, per book, 40 cents; Nos. 40 and 60, per book, 50 cents. .

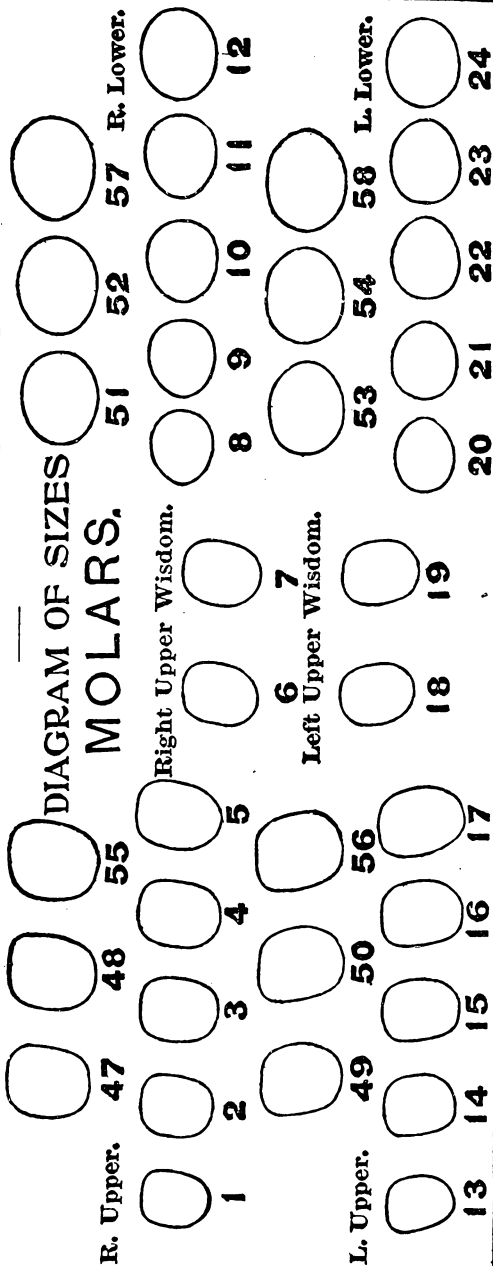
R. S. Williams' Standard Tin Foil.

Dentists who have used this brand of Tin Foil for the past quarter century continue to testify to its excellent qualities.

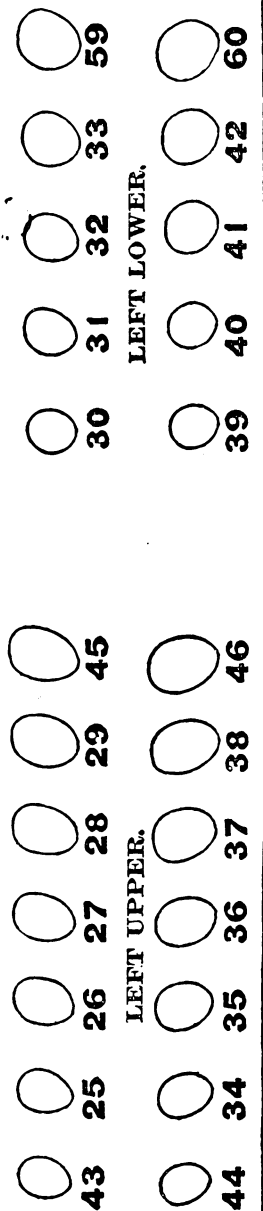
Prices : No. 3, per book, 75 cents ; Nos. 4, 6, 8, 10 and 20, per book, 50 cents.

Order by Number

MOLARS.



BICUSPIDS.

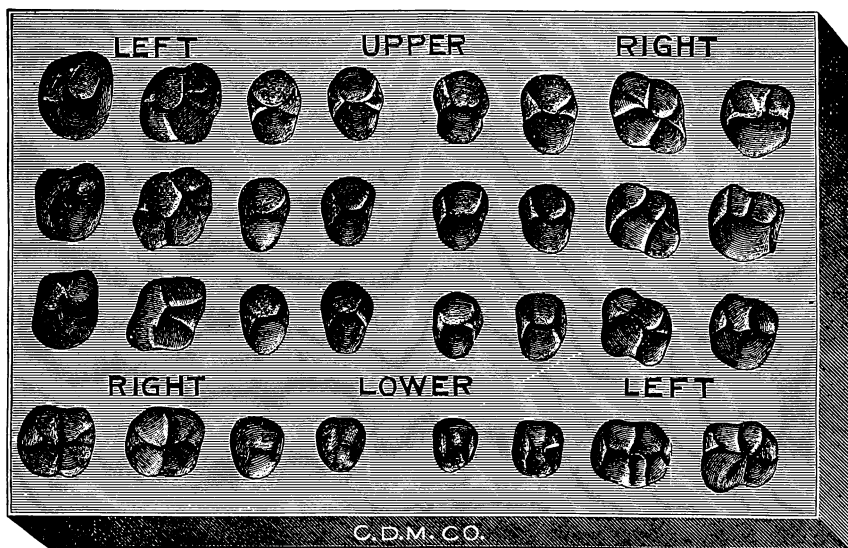


NOTE:—To find the size desired, take a piece of fine binding wire and place it around the neck of the affected tooth, and by twisting firmly connect the two ends. Then carefully remove the wire and place it upon the diagram under the head of the tooth required, and select the one nearest approaching it in size, and order accordingly *stating number*.

PRICES: Bicuspid Seamless Gold Crown, each \$2.00; Molar Seamless Gold Crown, each \$2.50. 24k. Crowns, or Crowns made of NON-OXIDIZABLE GOLD, one dollar extra.
No charge for fitting the Crowns to plaster casts.

Improved Crown Die-Plate

No. 626.



We invite especial attention to our Improved Die-Plate, which represents the highest grade of excellence in appliances of this character. These dies have been carefully engraved from typical natural teeth of each class, and are all clean-cut and finished in a workmanlike manner. The die-plate is polished all over, and bears our initials. It costs no more than the inferior kind. Price, \$3.00.

Seamless Gold Crowns.

These crowns are our own make, and are warranted 22k. gold. In form and contour they are faithful counterparts of perfect natural teeth of their respective classes.

By making our crowns of adequate length, we have overcome the principal objection heretofore offered against the use of ready-made crowns, and with the large assortment we offer, the unusual as well as customary cases are satisfactorily provided for.

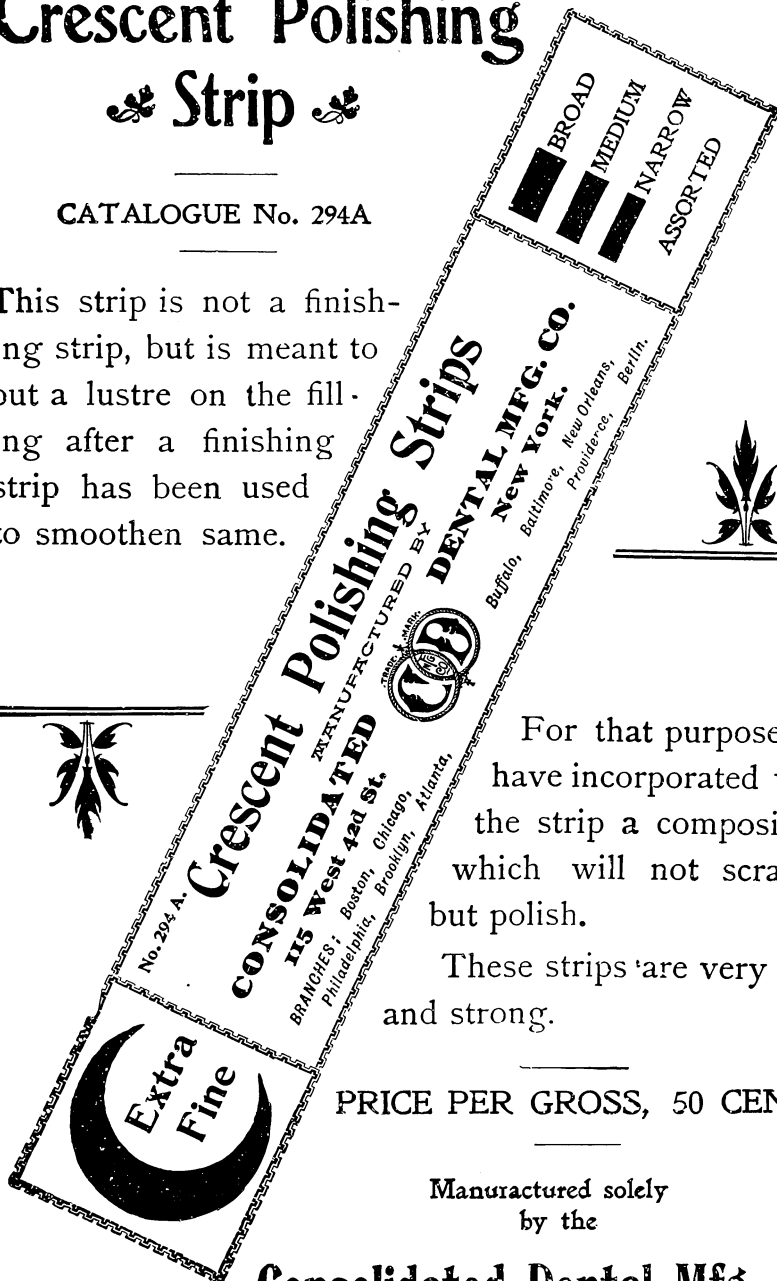
The diagram on opposite page shows the exact size of the respective crowns, at the neck. To ascertain the crown desired, place a piece of binding wire around the neck of the tooth; tighten by twisting the ends of the wire; remove from tooth, compare with diagram and select nearest size. Specify by number.

We furnish a complete assortment of the crowns in handsome case, there being 36 molars and 24 bicuspid, as the diagram illustrates.

Crescent Polishing Strip

CATALOGUE No. 294A

This strip is not a finishing strip, but is meant to put a lustre on the filling after a finishing strip has been used to smoothen same.



For that purpose we have incorporated with the strip a composition which will not scratch, but polish.

These strips are very thin and strong.

PRICE PER GROSS, 50 CENTS

Manufactured solely
by the

Consolidated Dental Mfg. Co.

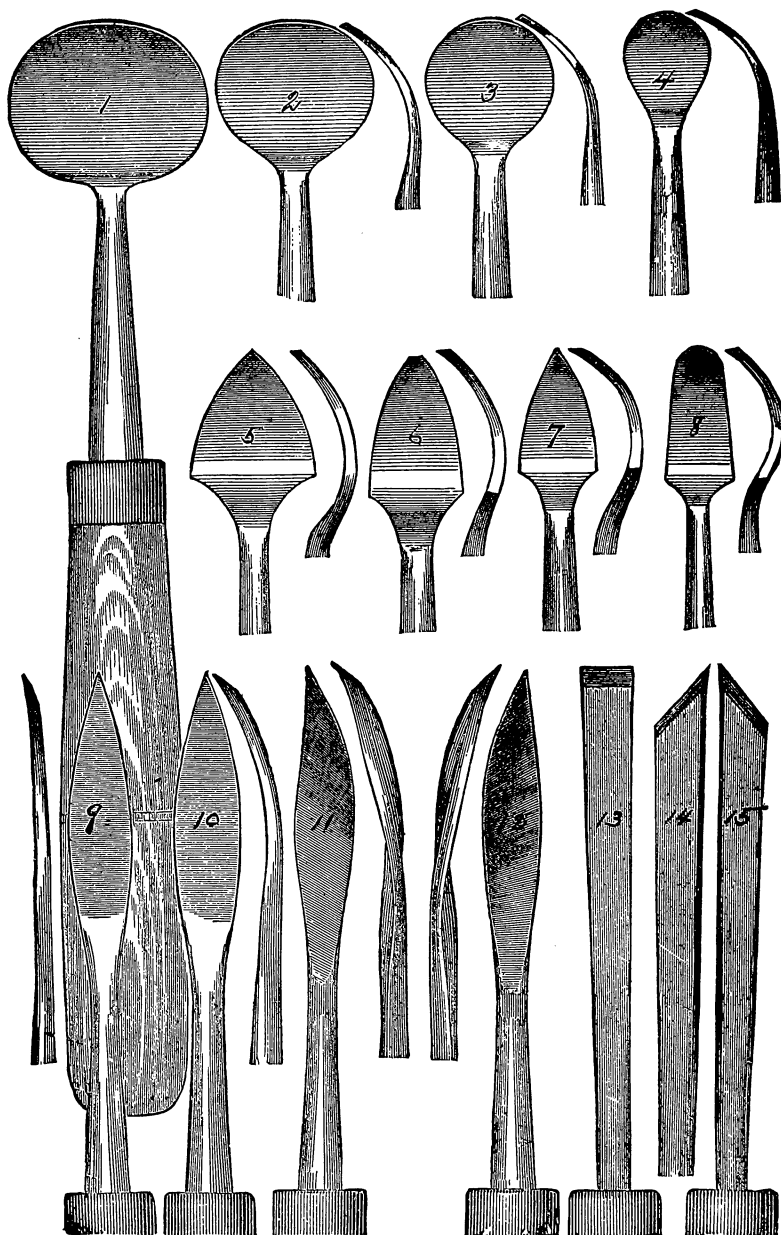
Catalogue

602

Number

RUBBER SCRAPERS.

FINELY TEMPERED.



Price, 25 cents each.

Special Notice to the Dental Profession.



Listerine

in the

Original Package



WE beg to announce that, in addition to the regular size 14-oz. bottle in which LISTERINE is offered to the trade, a smaller package, containing **three ounces** is now placed upon the market; the consumer of LISTERINE is thereby enabled to purchase, under the seal and guarantee of the manufacturer, even the smallest quantity likely to be required.

Wholesale druggists throughout the United States are prepared to promptly supply Pharmacists with the new size LISTERINE.



ORIGINAL PACKAGE.

3-oz. Size—LISTERINE—Price 25 cents.

Lambert Pharmacal Company, St. Louis.

WANTS. FOR SALE ETC.

NOTE.—Rate for advertising in this department of ITEMS OF INTEREST is ten cents per word, including captions, "Wanted," "For Sale," etc., and address. Initials charged as words. Advertisements should reach us by the 20th of each month to insure insertion in the following month's issue, and are payable in advance.

CONSOLIDATED DENTAL MFG. CO., Publishers, 115 W. 42d St., New York, N. Y.

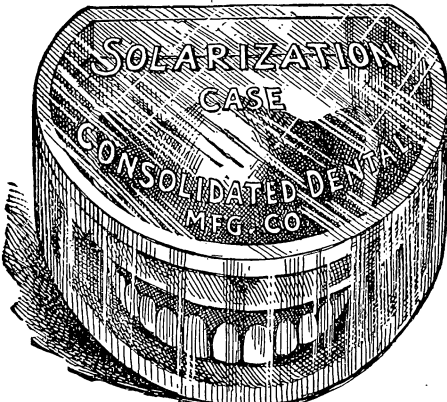
- 1563—WANTED.—Immediately, a first-class, all around dentist in advertising office; must be sober and honest; state age, experience and send references. THE WHITE DENTAL CO., Hartford, Conn.
- 1564—AM LOCATED in St. Paul and desire partner from that city which will then enable us to keep an extra man. Address "DECEMBER," care "Items of Interest," No. 115 W. 42d St., New York.
- 1565—FOR SALE.—Outfit and practice; established ten years; fine resident section, Philadelphia; doing \$4,800 year, cash; sickness. Address "INVALID," care Consolidated Dental Mfg. Co., No. 1413 Filbert St., Philadelphia, Pa.
- 1566—FOR SALE.—A seventeen years' established advertising practice in complete success and outfit; located in the most popular city in the country; price will be only the amount of one year's income; the health of the owner the only reason for the change. Address "SUCCESS," care "Items of Interest," No. 115 W. 42d St., New York.
- 1567—FOR SALE.—First-class practice and private house in New York City; established in 1893; house in elegant condition and best central location; reasonable to quick buyer; reason, retiring from business. Address "F. H.," care "Items of Interest," No. 115 W. 42d St., New York.
- 1568—NOTICE.—The New England Dental Agency, Hartford, Conn. (established 1893) has a representative in every state; practices sold on commission; assistants furnished without charge; reliable men wanted at all times.
- 1569—"TO BUY" well located and profitable business, New York, Pennsylvania or Ohio preferred. Address "DENTIST," No. 1808 Indiana Ave., Chicago, Ill.
- 1570—FOR SALE.—In southern city, large, growing and healthful, a dental outfit, lease, etc.; no northern dentist; purchaser must be able to stand "Board" examination next May; temporary license can be secured; good reasons. Address "SOUTH," care "Items of Interest," No. 115 W. 42d St., New York.
- 1571—WANTED.—Position by fine operator and bridge worker; twelve years' experience: references as to ability and character. Address "D," care "Items of Interest," No. 115 W. 42d St., New York.
- 1572—FOR SALE.—Dental practice and office furniture, cheap; good town in Central Illinois; population 7,000; railroad center, car and machine shops; several manufacturing interests. Address "500," care Consolidated Dental Mfg. Co., No. 78 State St., Chicago, Ill.
- 1573—FIVE HUNDRED DOLLARS buys dental outfit and exclusive practice; fifteen hundred yearly; junction town, Nebraska, twelve hundred. Address "BONANZA," care "Items of Interest," No. 115 W. 42d St., New York.
- 1574—FOR SALE.—Office furniture and practice of \$1,800; established 35 years; cash \$400; Missouri town. Address "H," care "Items of Interest," No. 115 W. 42d St., New York.
- 1575—WANTED.—Immediately, expert workman. "WORSTER," Emporia, Kansas.
- 1576—WANTED.—Position as operator by expert, reliable, experienced graduate. "BOX NO. 36," York, Pa.
- 1577—FOR SALE.—Good dental office; established fourteen years; two chairs; well fitted (electric); Jersey town, 60,000; cash business, \$6,000 to \$7,000 a year; \$1,000 cash required. Address "A. S.," care "Items of Interest," No. 115 W. 42d St., New York.
- 1578—FOR SALE.—Complete dental outfit with practice, New York City. Address "NO. 1578," care "Items of Interest," No. 115 W. 42d St., New York.
- 1579—WANTED.—A proficient, experienced college graduate for all round work; must be strictly moral and a gentleman; salary reasonable. Address T. J. WELCH, Pensacola, Fla.
- 1580—\$500 cash buys \$4,000 practice, with outfit, in agricultural and manufacturing town of 9,000 inhabitants in Minnesota. Address J. T. INGERSOLL, St. Paul, Minn.
- 1581—FOR SALE.—Fifteen hundred dollar cash practice and outfit, in six thousand city, S. E. Kansas; price six hundred; time and cash. Address "KANSAS," care "Items of Interest," No. 115 W. 42d St., New York.

See following page.

Wants, For Sale, Etc.—Continued.

- 1582—WANTED.—Position by experienced graduate, or would purchase good practice. Address "NO. 1582," care "Items of Interest," No. 115 W. 42d St., New York.
- 1583—FOR SALE.—Established advertising office on 14th St., New York City; \$12,000. Address "NO. 1583," care "Items of Interest," No. 115 W. 42d St., New York.
- 1584—OFFICES bought and sold; assistants wanted. NATIONAL DENTAL AGENCY, Lima, Ohio.
- 1585—\$4,000.00 new modern residence, \$2,000 practice, finely equipped office, new Harvard chair, practically no opposition, in thriving North Michigan town, for \$3,500; possession 1st April, 1901. Address "NO. 1585," care "Items of Interest," No. 115 W. 42d St., New York.
- 1586—\$350.—\$150 cash takes fine office and practice; furniture new; other business; curio seekers don't write; will stay until thoroughly introduced. J. E. MILLER, Glenwood Springs, Colo.
- 1587—FOR SALE.—Old established office at cost, \$400. Address "DENTIST," No. 1435 Granville Place, St. Louis.
- 1588—WANT all round good-looking young man to run office; want recommendations. Address M. K. PENNINGTON, London, Ky.
- 1589—FOR SALE.—Advertising practice, Eastern Pennsylvania; established five years; population thirty-two thousand; don't apply if you haven't the cash. PHILADELPHIA DENTISTS, Shammokin, Pa.
- 1590—FOR SALE.—\$5,000 buys one of the best advertising offices in Pittsburg, Pa., on best business corner; established four years; fully equipped; five dental chairs; three "Columbia" and two "Archer"; Electric motor in laboratory; lowest yearly receipts, eleven thousand dollars. Address "DR. WEST," care "Items of Interest," No. 115 W. 42d St., New York.
- 1591—WANTED.—An experienced dentist to take charge of office on 50 per cent. of the receipts; will be required to furnish \$1,000 bond. G. W. COCHRAN, Box No. 800, Erie, Pa.

Solarization Cases



Inside Dimensions.

No. 582 A— $3\frac{1}{8} \times 2\frac{1}{4} \times 1$ in.	25c.
No. 582 B— $3\frac{1}{8} \times 2\frac{3}{8} \times 2\frac{1}{8}$ in.	35c.

By Mail, 5c. Additional.

FOR the proper development of that desirable bright, rich color of dental rubber (particularly pink rubber), a

SOLARIZATION CASE

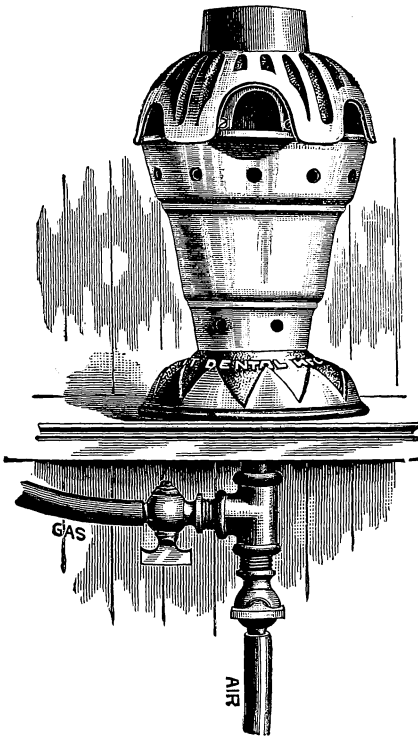
is a necessity. These Solarization Cases are designed to fill the demand for a

SPECIAL RECEPTACLE

for the solarizing process. A denture submerged in alcohol placed in one of these Solarization Cases and exposed for a short time to the light of the sun will have a beautiful pink shade closely resembling the natural color of the gums.

Solarization cases are made of heavy flint glass with neatly fitting lid and of proper shape to produce the best results, and the rapid evaporation of the alcohol is avoided.

Downie's Porcelain Crown Furnace



PATENTED 1893.

THIS Furnace is designed for baking Crowns, Porcelain Inlays, Sections, etc.

It has a platinum muffle, which is perfectly tight, and as there is no place for the escape of gas, except at the top, the gasing of work cannot take place.

The openings at the sides of the entrance to muffle are tempering ovens in which to set the work to gradually cool off after baking. The Furnace is full nickel-plated, and as there is an air space between the outer jacket and Furnace proper, the nickel does not become tarnished by the heat. It is an ornament to any laboratory or operating room.

With this Furnace the operator can readily see the work while baking, so there is no trouble about knowing when the work is done.

Can be used equally well with gas or gas generator.

With it broken teeth can be repaired and made as good as new. It is not the price of the tooth it saves, but it is often difficult to get a match for a tooth just when you want it. Crowns and teeth may be built up in any shape desired, and numerous other things which present themselves in practice, may be done.

With our new improved burner this Furnace makes very little noise, thus doing away with one of the most objectionable features of the Gas Furnace. The smallest size bellows will give all the blast necessary, and with very little pumping.

Always reliable and never fails to work. Bakes any porcelain and does it in less time than any other Furnace made.

Crown Size Muffle, 7-8 inch wide.....\$25.00
Bridge Size Muffle, 1 3-8 inch wide..... 50.00

The Downie Broach

SOMETHING NEW

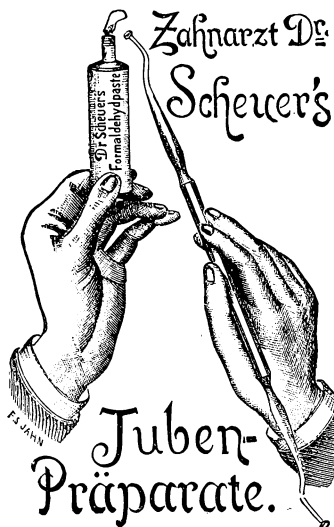
ANY broach or any piece of steel that is barbed or notched is very liable to break. These broaches are not barbed but are made in the form of a screw, which extracts the nerve much better than a barbed broach and will not break. Can be twisted up or tied in a knot without breaking. Made of the toughest steel known. Made to go into a smaller canal than any other broach. Made in regular length without handles, regular length with metal handles, and short with handles, for molars.



DO NOT BREAK

Price per half-dozen.....\$.75
Price per half-dozen, with handles..... 1.00

Detroit Dental Mfg. Co., Detroit, Mich., U. S. A.



**How to use
Formaldehyde-Paste.**
Put up in tubes. No mixing required.
Applied directly from tube to cavity.
Always effective.
Full direction with each package.
Literature sent on application.

Ready for instant use DR. SCHUEBER'S
preparations in tubes

FORMALDEHYDE-PASTE

Will preserve the pulp when exposed or covered by a thin layer of dentine—an invaluable preparation in all cases of deep caries. The paste can be applied even if the pulp has been bleeding, and permits immediate filling of the cavity.

JODOFORM ROOT-FILLING

Consists of a slowly hardening artificial dentine mixed with oil of cloves, carbolic acid and 20 per cent. jodoform. The consistency of the paste allows to work the needed quantity into a cone-shaped form, suitable to be introduced into the pulp-canal. Here it remains—a constant disinfectant. The preparation does not stick to the instrument, and the operation can be performed in two minutes.

CAUTERIZING-PASTE

Does not cause any pain, and acts promptly within 24 to 48 hours, when pulp can be extracted painlessly.

One tube is sufficient for 300 to 500 applications.

Hardened preparations can be softened by dipping the tube in hot water.

For Sale by all leading Dental Depots.

PRICE PER TUBE.

Formaldehyde-Paste.....\$1.50
Jodoform Root-Filling.....\$1.50
Cauterizing-Paste.....\$1.00



How to insert a
Jodoform
Root-Filling

Sole Importer and authorized Agent for U. S. and Canada

GUSTAV SCHARMANN, 1181-83 Broadway, New York

The Merker Chair

is the newest, the nearest perfect, the most improved dental chair. It combines the best features of all other chairs besides those distinctively its own. Ask your dealer to show you the chair.

Consolidated Dental Mfg. Company

115 West 42nd St., New York.

ELLIOTT & CO.,

22 Hanover Street,
EDINBURGH, SCOTLAND,

Dental Depot Specialists, have exceptional facilities for introducing novelties and goods, before the Dental Profession throughout Europe.

CORRESPONDENCE INVITED.

CLOTH FINISHING STRIPS

MANUFACTURED BY THE

CONSOLIDATED DENTAL MFG. CO.

ARE AS FINE IN QUALITY AS IT IS POSSIBLE TO MAKE A FINISHING STRIP

STRONG LINEN • • A GRIT THAT CUTS • • PERFECT BOND

Put up in the following grits: Coarse, Medium, Fine, Assorted
Cut into the following widths: Broad, Medium, Narrow, Assorted

Price per box of one gross, - - - - 50 cents

They can be obtained at all the Branches and Agencies of the Consolidated Dental Mfg. Co.

Ripans Tabules cure nausea.
Ripans Tabules cure headache.
Ripans Tabules cure flatulence.
Ripans Tabules cure dyspepsia.
Ripans Tabules cure biliousness.
Ripans Tabules cure constipation.
Ripans Tabules: pleasant laxative.

PATENTS

procured promptly and properly in all countries. Trade-marks and copyrights. **Davis & Davis**, Attorneys-at-Law. Offices: St. Paul Building, New York, and 709 G St., opp. Patent Office, Washington, D. C.

"Perfection"

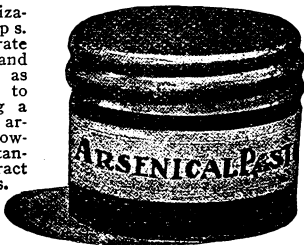
Pink Rubber

Have you tried it?

ARSENICAL PASTE No. 803.

For devitalization of pulps. Does not separate on standing, and is as painless as it is possible to make it, being a combination of arsenious acid, powdered opii, tannin, and extract of cocoa leaves.

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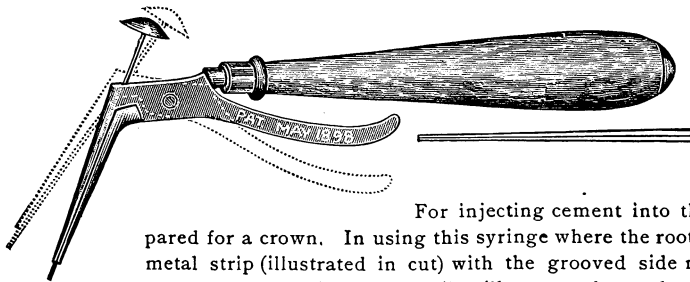
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Will save the nerve whenever there is any life remaining. Sensitive teeth can be excavated absolutely without any pain. Pulp partly decomposed, cut away the decomposition and cap the remaining live pulp with the assurance that it will remain alive and healthy. Price \$1.00.

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For injecting cement into the root of a tooth prepared for a crown. In using this syringe where the root is small, use the thin metal strip (illustrated in cut) with the grooved side next to the root, then force the cement in and the air will escape down the groove. Can fill two roots with one mixing if desired. Full directions with each instrument. Enquire of your dealer, or send to **DR. W. V. ELLIOTT, Elmira, N. Y.**

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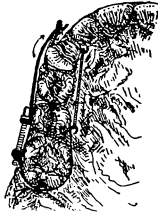
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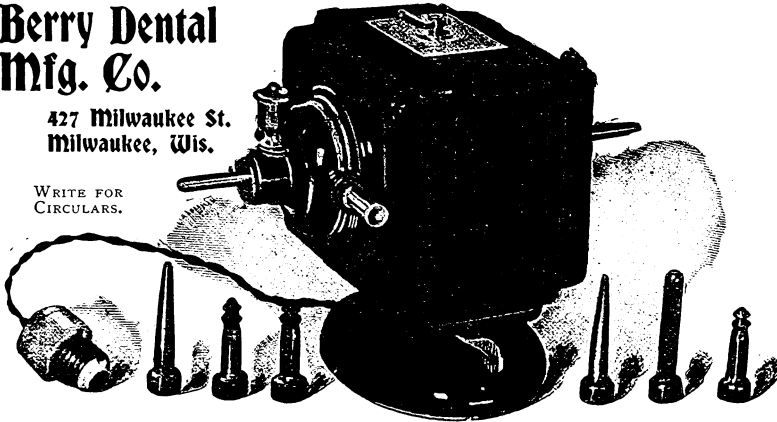
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In a report made at the Academy of Medicine, Paris, March 29, 1898, published in The Bulletin Médical of March 30, 1898, Prof. Reclus stated:

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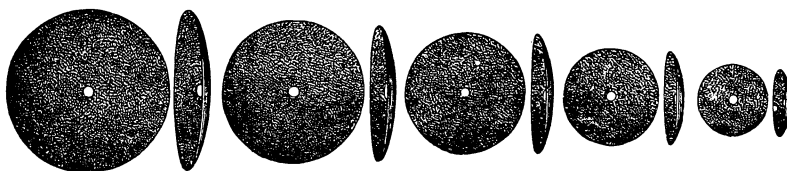
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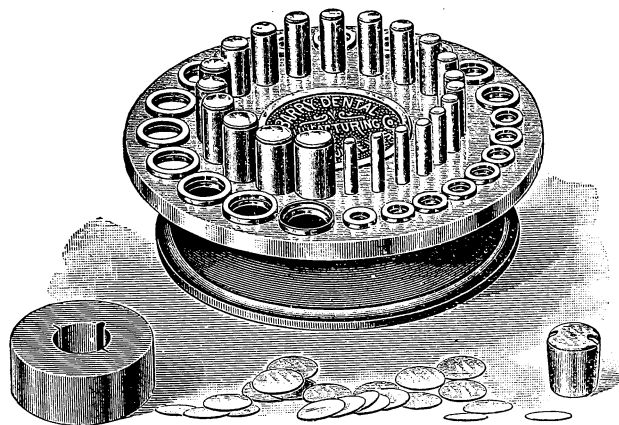
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We do not guess at length, contour, shape of cusps or the line of gum; all of these are accurately reproduced.

We do not reproduce a crown which is the thickness of the gold larger than the root. Our method gives exact fit, nothing larger or smaller.

WHY ARE OUR TOOLS DIFFERENT FROM OTHERS?

To say nothing of material, workmanship and design.

HERE IS THE DIFFERENCE:

The variation of size from one punch to the other is so slight that you can always find a size to correspond to the prepared root.

The tools are made for this system of crown work, and while others will make a seamless capsule, none will give you the range of useful sizes that ours do.

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It must break sharp in order to go back into place in the casting ring.

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Drawing dies	\$12.00	Fusible alloy, 4 oz. ingot.....	\$1.00
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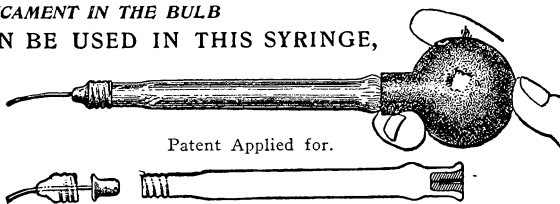
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Fig. 1.

Fig. 2.

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This result is produced by

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It is especially indicated after extraction and other surgical wounds of the mouth.
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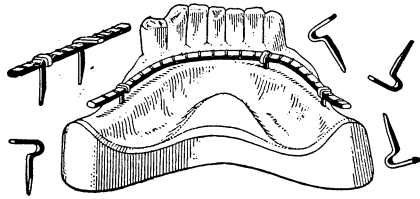
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Odontunder will not deteriorate. Every bottle guaranteed. Cash to accompany order or goods sent C. O. D.

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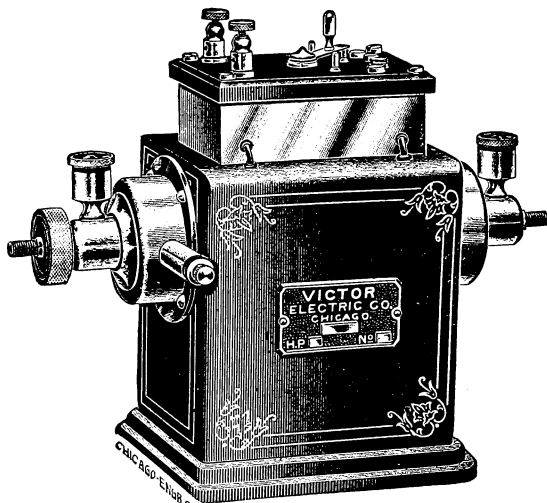
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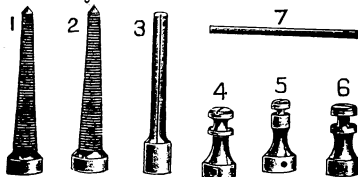
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CROWN and BRIDGE WORK,
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REGULATING APPLIANCES.
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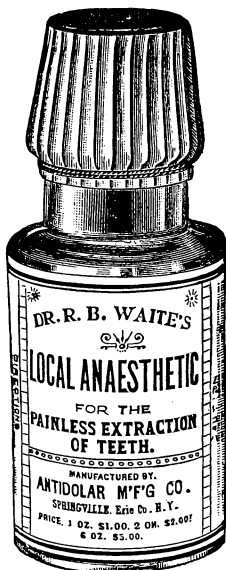
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Safe, Reliable, Non-Secret.

FOR PROOF write us, stating what Anæsthetic you are now using, and receive a sample bottle free of charge.

Read what Prof. Boenning and Dr. Harding say:

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THE ANTIDOLAR MFG. Co.—*Gentlemen:* I am now using Dr. R. B. Waite's Local Anæsthetic, at the Philadelphia Dental College, with great success, and satisfaction to the faculty and patients.

Yours truly,
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DR. GEO. R. HARDING.—*My Dear Sir:* I certainly take great pleasure in testifying to your skill as a Clinical Assistant and especially to your operations of extraction, and further, from all reports, consider the solution you use to Anæsthetize the mouth structures as eminently satisfactory. To the best of my knowledge no evil effects have followed its use in any case.

Yours very truly,
HENRY C. BOENNING, M.D.,
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Price, 1 oz., \$1.00; 2 ozs., \$2.00; 6 ozs., \$5.00; 12 ozs., \$10.00.

Or mailed upon receipt of price.

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To the discerning one who appreciates a "good thing" as soon as seen, a lengthy description is unnecessary. It is enough to say.

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Steurer's Plastic Gold. (Improved.)



This is a chemically pure gold in a plastic state, without admixture of any foreign substance, and has been extensively used by dentists at home and abroad for the past eleven years. In its improved form it does not crumble, but when properly annealed works like wax, and denser fillings can be made by hand pressure than with foil by means of a mallet.

It is a great time saver. It will not "ball," but spreads under the plugger and so adapts itself perfectly to the walls of the cavity. Can be used for contour work and will unite with any pure gold.

It is put up in two styles: Small square pieces, in 1-16 oz. vials; Large square pieces, in $\frac{1}{8}$ oz. boxes.

Do not be imposed upon by imitations, as this is the only "Plastic Gold in the world" that has kept up its reputation for so many years.

Price per Bottle, 1.16 oz., \$2.50

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Cash with all orders.

Sold at all Dental Depots.

Steurer's Automatic Annealer and Water Heater.

You cannot expect your gold to work well unless it is properly annealed.

As ordinarily done, it is mere guesswork, and is as liable to be wrong as right.

It is wrong to anneal over a naked alcohol flame (as is often done), because it is apt to become contaminated with carbon.

Metal plates get too hot, mica slivers and mixes with the gold. This is all overcome by the use of "Steurer's Automatic Annealer," which always anneals just right, never getting too hot, no matter how long you leave it over the flame. Used with an alcohol lamp. Simple and strong in construction, and no parts to get out of order.

By removing the annealing plate and substituting the aluminum cup, hot water can be obtained in a few moments.

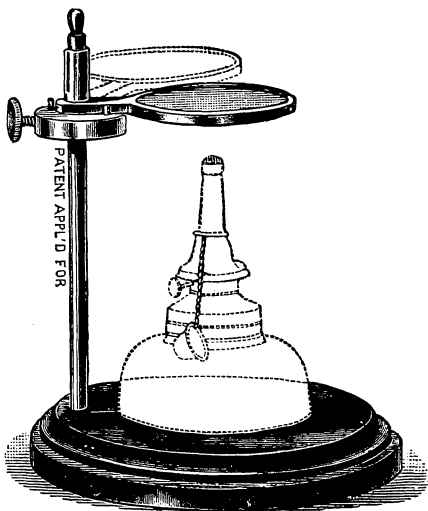
PRICES.

Annealer only, without Lamp, - \$2.00

Annealer, with Lamp, - 2.30

Annealer, with Lamp and Hot Water Cup 2.50

Sold by all Dental Depots.



...ETHOKANE...

An ideal obtundent for sensitive dentine. It is composed of an ethereal solution of Beta Eucaine. It is far superior to Cocaine for the following reasons: It is 80 per cent. less tonic. It is a permanent solution and does not deteriorate like all Cocaine solutions. It is anaesthetic to the last drop. No irritation when first applied.

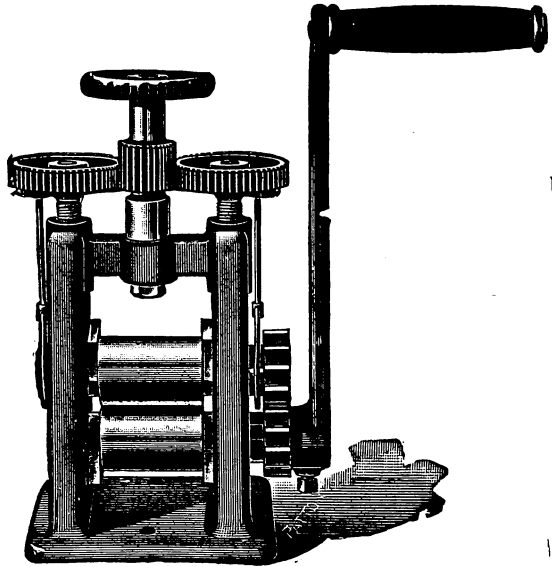
PRICE 50 CENTS PER BOTTLE.

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PATENT APPLIED FOR



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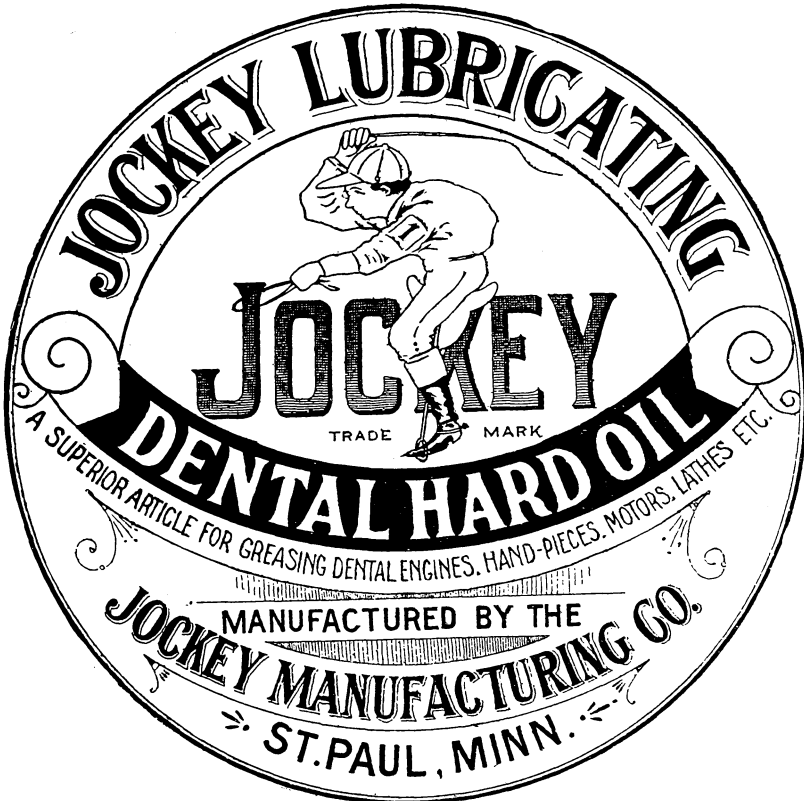
We would be pleased to quote price on application, or you can obtain the mill of any of the leading dental depots in this and other countries.

W. W. OLIVER, Sole Manufacturer,

1487-1489 NIAGARA STREET, - BUFFALO, N. Y. U. S. A.

Dentists See Here!

HAVE you ever had trouble with oil dripping into the mouths of your patients from the hand-piece, besmearing your hands, etc. Have you ever had trouble with your hand-pieces running dry and "sticking" from saliva getting in between the bearings and rusting? Did your hand-piece ever become gummy? If you have, then you should stop using oils for lubrication and use the latest dental lubricant, "JOCKEY LUBRICATING HARD-OIL."



One application to the hand-piece will last a month without dripping, without gumming or running dry. **WILL ANY OF THE OILS DO THIS?**

Heat will not affect it nor will saliva interfere with it.

ISN'T IT WORTH YOUR CONSIDERATION?

Hand-pieces will last longer then, don't you suppose?

The Jockey Hard-Oil is made from pure mineral oils. No animal fats, vegetable oil or bone-grease entering into it's composition. Will not become rancid, but will keep indefinitely in any climate and has far more lasting qualities than the best or high-priced perfumed oils made for dental lubrication.

For Sale by all Dental Supply Houses or sent direct for 25 cts., if your dealer isn't up to times.

MANUFACTURED BY THE



JOCKEY MANUFACTURING CO. St. Paul, Minn.

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from a letter we recently received from one of the largest dealers in dental goods, a customer of ours, reads as follows:

"We should not have said in our last letter that we were pushing any other Stopping but yours, as we intended to say that we were handling no other stopping but Gilbert's. We, of course, have been offered several cheaper articles, but as they were comparatively unknown and as we knew nothing of their quality we preferred to stick to the old reliable, which not only never went back on us, but which was well advertised."

From the above extract you will understand why

GILBERT'S Temporary Stopping *is the Standard of The World.*

Put up in packages containing about one ounce, either all white, all pink or pink and white assorted.

Price, 50 cents per package

Fully guaranteed by the manufacturer and for sale by all the leading dealers in dental goods, or will be sent by mail prepaid to all parts of the United States and Canada on receipt of price.

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Look for the above signature on the label. None genuine without it.

Let No One Fool You About Nerve Broaches.

K. & E. is a uniform, spring-tempered, barbed clear to the top, up-to-date broach, and sells for 75c. per package.

K. & E. revelation cut bur is the best tempered bur on the market.

Do not be controverted by smooth talking salesmen; send direct to the manufacturers.

KRETCHMAR & ENGLISH,

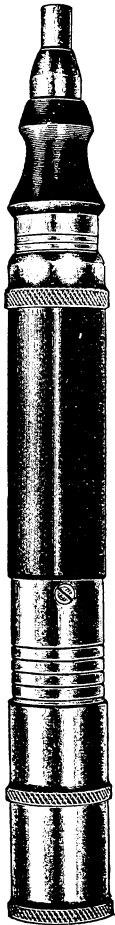
125 SOUTH CLARK STREET, CHICAGO.

SNOW'S SPRING MALLETS

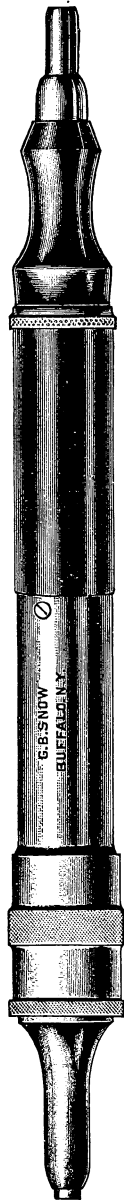
Improvement Patented July 25, 1899



ORIGINAL PATTERN, Variable Stroke, 1-6, $\frac{1}{8}$, 1-12 Inch. Price, \$5.00.



SOUTHWICK PATTERN, Variable Stroke, 1-6, $\frac{1}{8}$, 1-12 Inch. Price, \$5.00.



DOUBLE END, Both Push and Draw Strokes, $\frac{1}{8}$ Inch Only. Price, \$6.00.



STUDENT PATTERN, $\frac{1}{8}$ Inch Direct Blow Only. Price, \$4.50.

These Mallets are the outcome of thirty-five years' experience in the manufacture of Automatic Mallets. The Original and Southwick patterns have lately been improved by the addition of a **VISIBLE ADJUSTMENT FOR THE HAMMER STROKE**. This is secured by a lock nut, and **WILL NOT CHANGE** while the instrument is in use. The shape of the hard rubber nose-piece has also been improved, and to make a better fit for the fingers. **ALL SNOW MALLETS HAVE THE HARD RUBBER GRIP**, or finger hold. Beware of imitations of this feature on inferior instruments. The Snow Mallets are manufactured only by

THE SNOW DENTAL CO., Buffalo, N. Y.

The HAMMOND SECTIONAL ELECTRIC INLAY FURNACE.....

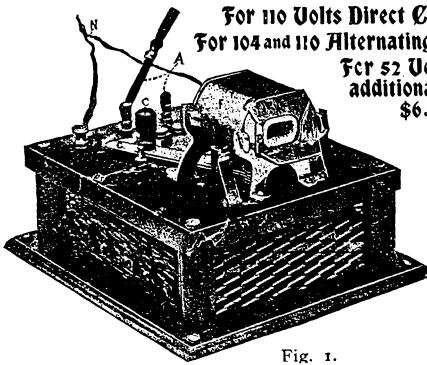


Fig. 1.

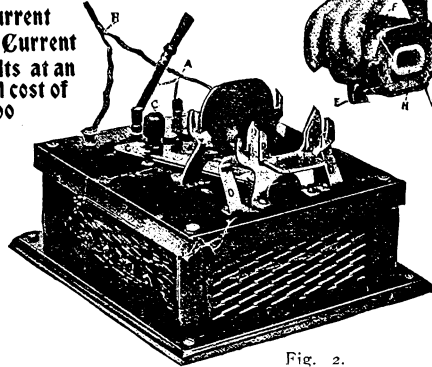


Fig. 2.

For 110 Volts Direct Current
For 104 and 110 Alternating Current
For 52 Volts at an
additional cost of
\$6.00

Among the inlay furnaces now on the market, The Hammond Sectional Electric Inlay Furnace marks an entirely new departure.

GREAT DURABILITY

It combines the utmost simplicity of construction and operation with a durability and efficiency not approached by any other furnace at present before the dental profession.

DOES NOT BURN OUT

The liability to burn out or short circuit has been almost absolutely eliminated.

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Owing to the improved method of wiring, this furnace produces the highest degree of heat ever attempted in a platinum wound furnace.

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It is under the most perfect control of the operator, so that he is able to secure just the degree of heat necessary to do the particular work in hand.

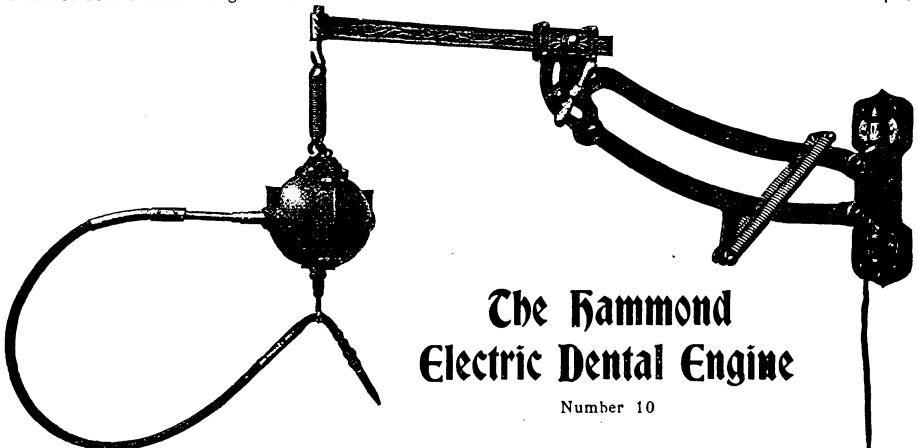
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The working parts of this furnace are interchangeable so that in case of accident they may be removed and replaced in the shortest time.

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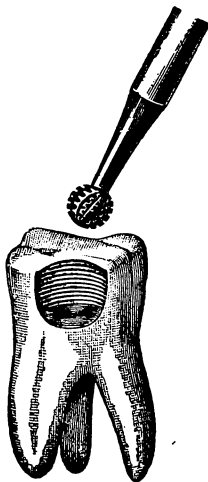
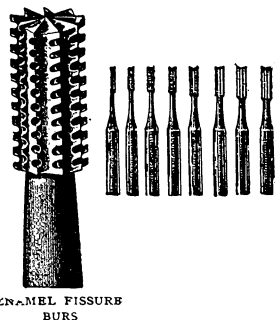
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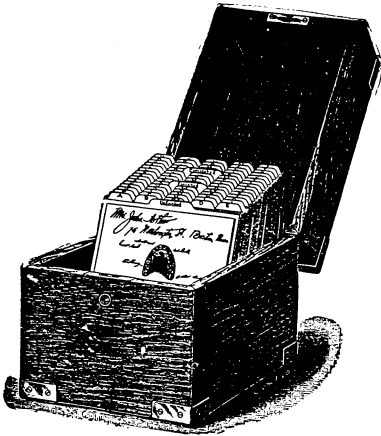
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The fact that dentistry must be practically taught is fully recognized, the College Infirmary, a most complete, large, and handsome hall, being daily filled with clean and respectable patients, of a class nearly equal to those of the average dentist. The infirmary is open all the year, students paying an entrance fee, which is deducted from those of the regular succeeding course.

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Commencing October 1, 1895, women will be admitted to this College, subject to the same requirements as men.

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Graduates of the Baltimore College of Dental Surgery are required to attend but two sessions at the College of Physicians and Surgeons prior to presenting themselves as candidates for the degree of M. D. (See Catalogue.) The qualifications for entering the first year's course is in accordance with the resolutions adopted by the National Association of Dental Faculties.

TERMS OF GRADUATION.—Attendance on three winter courses of lectures in this College; as equivalent to one of these we accept one course in any reputable dental college. Graduates in Medicine can enter the Junior Class.

FEES.—Matriculation (paid once only), \$5.00. Tuition fees, \$100.00. Diploma fee, \$30.00. Dissecting fee, \$10.00.

Students corresponding with the Dean will please be careful to give full address, and direct their letters to

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This College is a member of the NATIONAL ASSOCIATION OF DENTAL FACULTIES, and matriculation and graduation of students conform to the rules of this body.

During January, February and March of 1899 the students filled over 2,000 cavities in the mouths of patients.

The building is new, with elevators and steam heat. The four floors used by the college have over 14,000 square feet of floor space and are lighted by over 2,000 square feet of window space.

REGULAR WINTER TERM begins October 2, and students must matriculate before October 12 to get credit for the term. Women admitted.

FEES:

Matriculation, paid but once.....\$	5.00	Dissecting fee (per part).....	\$5.00
Tuition fee	100.00	Diploma fee	30.00

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Incorporated by the Legislature of the State of New York in 1865.

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The collegiate year work of 1900-1901 will consist: of a *free* Infirmary Course (*optional*) of daily infirmary practice, from May 16, 1900, to October 1, 1900, to students matriculated for the collegiate year; and, a Lecture Session (*obligatory*), of lectures, practical classes in sections and daily infirmary practice, from October 1, 1900, to about May 15, 1901.

A special feature of the curriculum of the New York College of Dentistry is that students work DAILY, for patients of the infirmary, for the entire period of their college attendance—first, second and third year—under the direction of the superintendents and demonstrators of the Infirmary.

REGISTRATION FOR THE LECTURE SESSION OF 1900-1901 CLOSES
OCTOBER 10, 1900.

Applicants will be admitted to the Lecture Session of 1900-1901 as *Degree, Special or Session Students*.

1. **DEGREE STUDENTS.**—Those matriculating toward the degree of D.D.S., under the following preliminary educational requirements:

a. For those who were matriculated in a registered dental or medical college prior to January 1, 1896, no preliminary educational conditions will be required, either for the degree of the College or the license examination of the State of New York.

b. For those who were matriculated in a registered dental or medical college between January 1, 1896, and January 1, 1897, a certificate of two years of high school attendance or pass cards for 24 academic counts obtained by Regents examinations:

c. *For those matriculated between January 1, 1897, and January 1, 1901, a certificate of three years of high school attendance, or their equivalent in credentials from schools registered by the Regents or pass cards for 36 academic counts obtained by Regents examinations;*

d. *Special attention is called to the fact that there will be required of those not matriculated before January 1, 1901, a certificate of four years high school attendance or their equivalent from schools registered by the Regents or pass cards for 48 academic counts obtained by Regents examinations.*

A graduate of a dental college OUT of the State of New York is not admitted to the dental license examination of the State of New York unless he has fulfilled the preliminary educational requirements of "Degree Students."

2. **SPECIAL STUDENTS.**—Those who, without any preliminary educational requirements, matriculate, but not toward the degree, and attend the Infirmary practice, with lecture attendance *free*, pending their securing by Regents examinations the preliminary educational requirements to become a "Degree Student," with their "Special Student" period credited as pupilage only. On the date of their having obtained 24 counts they become "Degree Students."

3. **SESSION STUDENTS.**—Those who hold credentials of preliminary education equivalent to "a certificate of entrance into the second year of a high school," matriculate for their first or first and second lecture sessions, but not toward the degree, pay the fees and are eligible to take the examinations and certificates of the sessions. The certificate of the session or sessions will admit them to advance standing toward the degree in dental colleges, *out of the state*, belonging to the *National Association of Dental Faculties*.

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Entrance examinations conducted by the office of the Superintendent of Public Instruction, for students arriving without the required preliminary education certificate, begin	SEPTEMBER 24
Close	OCTOBER 19
Examinations for advancement begin	SEPTEMBER 2
Close	OCTOBER 19
Opening of Regular Session, 8:30 A. M.	OCTOBER 9
Matriculation for Regular Session closes	OCTOBER 19
Practitioners' Course begins	FEBRUARY 15
Practitioners' Course ends	MARCH 31
Final Examinations begin:	
Senior Class	APRIL 22
Junior and Freshman Classes	APRIL 29
Contests for graduation medals in Operative and Prosthetic Dentistry begin	APRIL 29
End	MAY 4
Clinic closes	MAY 5
Commencement Exercises	MAY 6
Practical Clinical Dentistry Course begins	JUNE 17
Ends	OCTOBER 8

With the exception of the Practitioners' Course, all our dates are advanced one month, as per the above Calendar.

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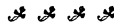
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UNIVERSITY OF INDIANAPOLIS

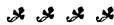


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WILLIAM V. LAWS, M.D., Demonstrator of Operative Surgery.

SESSION.

The fall session will begin September 3, 1900, the regular session October 1, 1900, and continue seven months, examinations and graduation exercises being held concurrently with those of the Medical Department.

The courses will be graded, and a feature of the plan of teaching will be the subdivision of the classes into small sections, each to receive in turn the same instruction.

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Chicago College of Dental Surgery.

Dental Department of Lake Forest University

Wood and Harrison Streets, Chicago, Ill.

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Three full winter courses of lectures are required before graduation. Graduates of pharmaceutical and undergraduates of medical colleges in good standing and graduates of reputable veterinary colleges are admitted to the second year course, and can become candidates for graduation after taking two full winter courses of instruction.

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 NICHOLAS SENN, M.D., Ph.D., LL.D., Consulting Surgeon.
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 CALVIN S. CASE, M.D., D.D.S., Professor of Orthodontia, Stewart Building, Chicago.
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 J. NEWTON ROE, A.M., Sc.D., Professor of Chemistry and Metallurgy, Valparaiso, Ind.
 E. J. PERRY, D.D.S., Professor of Prosthetic Dentistry, Stewart Building, Chicago.
 CARL BECK, M.D., Professor of Bacteriology and Surgical Pathology, 100 State Street, Chicago, Ill.

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During the Freshman year the studies taken up are: Theoretical and Practical Chemistry, Anatomy, Physiology, Materia Medica, Dental Anatomy, Histology, Operative and Prosthetic Technics and Operative and Prosthetic Dentistry.

Recitations in this course are conducted daily in commodious rooms specially arranged for this method of teaching. Stated lessons assigned from approved text-books supplement the didactic lectures and work in the laboratories.

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During the Junior year students complete the work in Anatomy, Physiology, Chemistry, Histology, Pathology and Bacteriology and Materia Medica. In addition to this they receive instruction in Comparative Dental Anatomy, Crown and Bridge Work, Regulating Appliances, Splint and all kinds of Plate Work, and operate in the Infirmary.

THIRD YEAR.

During the Senior year the students listen to lectures on Oral Surgery, Therapeutical Operative Dentistry, Dental Anatomy and Pathology, Orthodontia and attend Clinics. In addition to the lectures each student is required to operate in the infirmary and perform practical work in the Laboratory.

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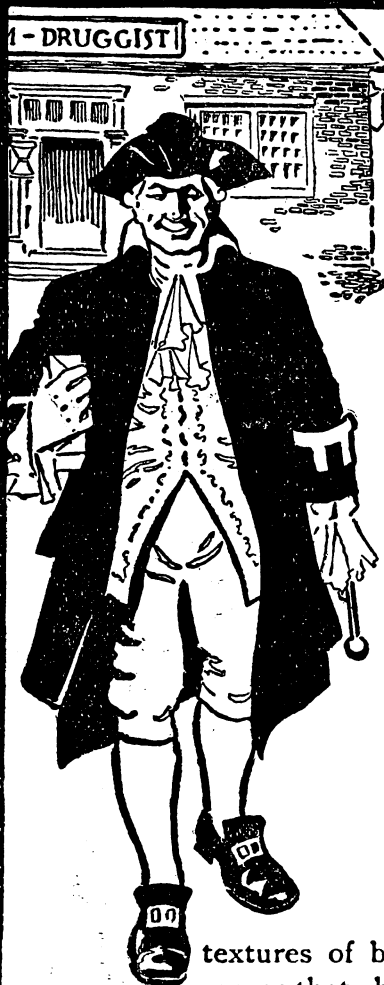
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